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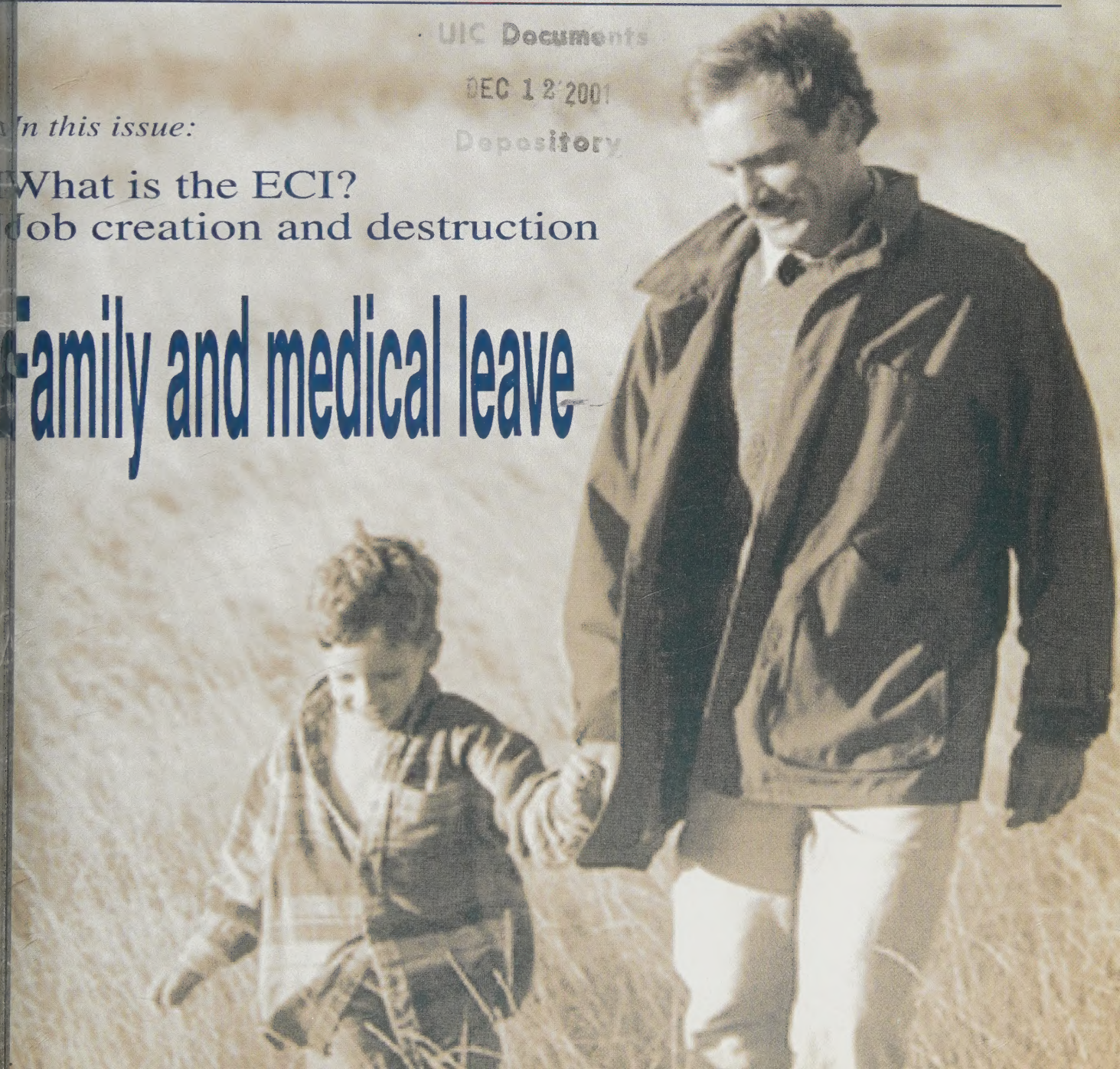

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The September *Review*

The Employment Cost Index (ECI) is one of several important Bureau of Labor Statistics measures of what can be termed business costs. That is, as John W. Ruser points out in his article, it is "an indicator of cost pressures within companies that could lead to price inflation for finished goods and service." The article goes on to describe the wage and salary payments and the wide range of benefit costs counted, the raw data collection process, and the statistical calculations underlying the index. It also includes analyses of the index's behavior over the business cycle and other characteristics of the data series.

Jane Waldfogel submits a careful analysis of two surveys conducted for the Department of Labor on the impacts of the Family and Medical Leave Act (FMLA). She reports, among other findings of the survey, that about 16 percent of employees took leave for family or medical reasons in 2000, and that only about 10 percent of employers perceived a noticeable negative impact of the program on business profitability or growth.

R. Jason Faberman takes advantage of the Longitudinal Database (LDB), a relatively new tool developed by the Bureau of Labor Statistics, to investigate the dynamics of employment in the Baltimore and Washington metropolitan areas. The LDB contains quarterly employment and wage data for nearly all establishments in the United States. The comprehensive coverage of the database allowed Faberman to focus on two metropolitan areas and the longitudinal nature of the files allowed him to decompose job flows into their component parts. By using these characteristics of the data, he is able to conclude, "These findings shed an intriguing new light on the employment dynamics observed within metropolitan areas: not only is job growth higher in the suburbs, but job turnover is as well."

Effects of events of September 11

The events of September 11, 2001, resulted in a tragic loss of life and significant disruptions to workers in the local affected economies. In Lower Manhattan, about 368,000 persons worked within a few blocks of the World Trade Center, more than a half-million worked within the area cordoned off by emergency officials as they responded to the attack, and about 700,000 in a slightly larger area of the southern quarter of the island.

The immediate statistical impact of this attack, however, was small relative to the number of people who were affected. In the Current Employment Statistics survey of establishments, the reference period is the pay period including the 12th of the month. Workers employed for any portion are counted as employed. Nearly all pay periods including the 12th began prior to the day of the attack. Thus, it is likely that the events of September 11 had little effect on September's overall employment count.

To the extent that potential jobseekers were unable or unwilling to search for work in the aftermath of the events of September 11, unemployment estimates could have been affected in the Current Population Survey of households. Because the reference period for job search is any time during the 4 weeks ending September 15, however, the effect on unemployment appears to have been limited.

The employment and unemployment effects of the September 11 attacks are more likely to begin to register by the time data for October become available in November. We cannot be sure, however, that we will be able to completely disentangle these effects from other influences in the economy. Additional information and links to program-specific fact sheets can be found at:

http://www.bls.gov/blsimpac.htm

Women narrow earnings gap by degrees

At all levels of education, women fared better than men did with respect to earnings growth between 1979 and 2000. Earnings for women with college degrees have increased 30.4 percent since 1979 on an inflation-adjusted basis, while those of male college graduates rose only 16.7 percent.

Inflation-adjusted earnings for women with a high school diploma advanced 2.9 percent between 1979 and 2000, while earnings for male high school graduates fell 12.9 percent. Among those with some college or an associate degree, women's earnings were up 8.2 percent, while men's were down 4.1 percent.

Although both women and men without a high school diploma have experienced a decline in inflation-adjusted earnings since 1979, women's earnings fell significantly less—a drop of 9.8 percent, compared with a 26.7-percent drop for men. More information can be found in *Highlights of Women's Earnings in 2000*, BLS Report 952.

Midwesterners most likely to have job

The proportion of the population with jobs was the highest in the Midwest in 1999. Among Midwesterners, 67.3 percent of the population was employed on average in 1999. The percentages for the other three regions were clustered within a narrow range: 64.3 percent of those in the West were employed, 63.2 percent in the South, and 62.5 percent in the Northeast. In the Nation as a whole, 64.3 percent of the population had jobs. Additional information is available from *Geographic Profile of Employment and Unemployment, 1999* (BLS Bulletin 2537). □

The Employment Cost Index: what is it?

Understanding the characteristics of the Employment Cost Index aids in identifying the cost pressures measured by this important Government statistic—pressures that often lead to inflation in the price of goods and services

John W. Ruser

The Employment Cost Index (ECI) is a quarterly measure of the change in the price of labor, defined as compensation per employee hour worked. Closely watched by many economists, the ECI is an indicator of cost pressures within companies that could lead to price inflation for finished goods and services. The index measures changes in the cost of compensation not only for wages and salaries, but also for an extensive list of benefits. As a fixed-weight, or Laspeyres, index, the ECI controls for changes occurring over time in the industrial-occupational composition of employment.

This article provides a broad overview of the ECI. Beginning with how the data for the index are collected and how the index is calculated, the discussion draws attention to some of the underlying challenges that are involved in calculating such a complex statistic: What types of data should, ideally, be collected? What data are collected under nonideal conditions? and How are infrequent payments handled? Then, the article addresses a variety of questions that have been raised about the behavior and efficacy of the ECI: How does the index behave over the business cycle? Is it, like the Consumer Price Index (CPI), affected by "substitution bias"? Does the ECI capture emerging forms of compensation, such as hiring and retention bonuses and stock options? and, finally, How does employer cost relate to employee value?

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Collection of ECI data

The ECI is computed from compensation cost data collected from a sample of jobs within sampled business establishments and government operations. (In what follows, business establishments and government operations will collectively be called "establishments.") The data are weighted to represent the universe of establishments and occupations in the nonfarm private sector and in State and local governments. The ECI sample, and hence the estimates derived from it, exclude Federal, private-household, and unpaid family workers, as well as self-employed individuals and owners of establishments.

The ECI sample is currently drawn in three stages as part of the larger National Compensation Survey. First, sample geographic areas are selected by dividing the United States into primary sampling units.[1] Second, a sample of business establishments and State and local government operations is selected from within each primary sampling unit that is chosen. Third, a BLS data collector visits each establishment in the sample (the first visit is termed "initiation"), asks for a list of employees, and then collects a sample from this list, using predetermined rules. The employees making up the sample represent jobs that enter into calculations of the ECI. Techniques in which the probability of being selected for the sample is proportional to size are used at all stages of sampling, which means that larger geographic areas, larger establishments, and jobs with more employees have a higher probability of appearing in the survey. However, smaller areas, establishments, and jobs appear as well. For a fixed sample size, variances of estimates tend to be smaller under this kind of sampling than under simple random sampling.

Establishments and jobs within them remain in

the ECI sample for approximately 5 years, contributing data every quarter for the pay period that includes the 12th day of the survey months: March, June, September, and December.[2] Data on the cost of compensation are collected for all employees in sampled jobs. After the initial personal visit, quarterly reports are normally collected by mail or telephone by economists located in BLS regional offices. During the time a job remains in the ECI sample, data are collected on all incumbents in the job, even through changes in incumbency. Because the ECI does not follow changes in compensation costs for individual workers, the average wage and salary of a job may vary over time as the composition of incumbents varies (for example, when the tenure of incumbents changes with the business cycle).

Due to business closings, the elimination of jobs, and the refusal of respondents to participate further in the survey, some establishments and some jobs drop out of the sample, an event termed "attrition." To reduce the burden on respondents, rebuild the attrition-depleted sample, and keep the sample current with the changing economy, establishments in the sample are replaced in a procedure termed "sample replacement." Replacement of ECI samples was begun in 1981, and the method for replacement has differed over time. From 1986 until 1997, all of the establishments within designated groups of industries were replaced at the same time, with different industry groups replaced in different years. This approach had the disadvantage that the samples for some industries were older than those for other industries, which was a problem because the sample of jobs can become unrepresentative over time.[3]

Since 1997, when the Bureau began integrating the ECI into the National Compensation Survey, replacement samples have become cross-area and cross-industry samples, meaning that each replacement sample is now nationally representative. The sample is divided into five approximately equal groups that are replaced every 5 years. Such a replacement scheme has an advantage over the previous scheme in respect of maintaining the currency of the sample. The new replacement-group data contain information about the changing workforce that may be used to adjust the sampling weights of the older, less representative, replacement groups. Alternatively, it may be possible to weight more heavily the data from the more recent and more representative replacement groups. The Bureau will conduct research to determine which approach holds more promise for maintaining an up-to-date survey.

The sample size at any time depends on the size of the initial sample, its age, the rate of sample attrition, and sample replacements. The size of the ECI sample has varied over time. Recently, the sample has begun to grow from a realignment of compensation survey resources. The sample is expected to continue to grow, both from this realignment and from a budget increase. As of June 2001, 7,365 private-industry establishments provided data on about 31,100 occupations, while 790 State and local government operations afforded data on about 3,800 occupations. Current plans call for expanding the gross sample to 18,000 units, although the usable sample is expected to be at least 25 percent smaller, as some units fail to respond and others are found to be out of business or out of the scope of the survey.

Collection of wage and benefit data

At least two approaches could be taken to measuring an employer's costs for employee compensation. One focuses on past expenditures—that is, the actual money an employer spent on compensation during a specified time, usually the past year. The other focuses on estimating current costs—current wages and salaries and the cost of benefits under current plan provisions and under participation in the plan at its initiation or at another point in time. BLS data collectors are instructed to capture data in accordance with the second approach (termed the "rate-and-usage" approach), although at times circumstances require the collection of data on past expenditures instead.

The ECI captures the change in employers' costs for wages, salaries, and 20 different benefits classed into six categories. Wages and salaries are defined as the hourly straight-time wage rate or, for workers not paid on an hourly basis, straight-time earnings divided by the corresponding scheduled hours. Straight-time wage and salary rates are total earnings before payroll deductions, including production bonuses, incentive earnings, commission payments, and cost-of-living adjustments. Other supplemental cash payments are considered benefits.

The benefits covered by the ECI include the following:

- Paid leave—vacations, holidays, sick leave, and other leave;
- Other supplemental cash payments—premium pay for work in addition to the regular work schedule (for example, overtime pay and pay for working weekends and holidays), shift differentials, and nonproduction bonuses, such as lump-sum payments provided in lieu of wage increases;
- Insurance benefits—life, health, short-term disability, and long-term disability insurance;
- Retirement and savings benefits—employers' payments into defined-benefit and defined-contribution plans, including Employee Stock Ownership Plans (ESOP's);
- Legally required benefits—Social Security, Federal and State unemployment insurance, workers' compensation insurance, and Medicare;
- Other benefits—severance pay and payment into supplemental unemployment plans.

All costs of benefits are converted to an hourly basis by dividing the annual cost of benefits by annual hours worked.

The information needed to calculate the cost of benefits according to rate and usage depends on the specific benefit plan. The discussion that follows shows how rate and

usage information is used to calculate costs.

Vacations. To calculate the cost of vacations, at initiation data are collected on (1) vacation provisions by length of service, (2) the distribution of workers in the sampled occupation by length of service, and (3) the number of paid hours per vacation day. For example, suppose that there are 10 workers in a sampled job and that 5 have fewer than 5 years of service with the company and 5 have more than 5 years. Suppose further that the company's vacation plan allows 10 days of vacation for workers with under 5 years of service and 15 days of vacation for those with 5 or more years of service. Suppose also that each vacation day has 8 hours and is paid at the straight-time rate of $10 per hour. Finally, suppose that the total hours worked equal 2,000 per worker. Then the average number of vacation days taken by all workers in the sampled job is 12.5, and the cost of vacations is[4]

$$\frac{12.5 \text{ days} \times 8 \text{ hours} \times \$10}{2{,}000} = \$0.50 \text{ per hour worked.}$$

In contrast to vacation time, the calculation of which is based on assuming that all vacation hours are taken, the cost of sick leave is based on actual usage at the time of initiation.

Health insurance. Suppose that a health insurance plan is offered to all employees in the sampled job, but only 9 of 10 participate in the plan at initiation. The monthly premium, paid entirely by the company, is $120 per participating employee. Each employee works 2,000 hours. The annualized current cost per employee is the monthly premium, times 12 months, times 0.9. (Recall that one employee does not participate.) The annualized current cost is divided by 2,000 to yield the current cost per hour:

$$\frac{12 \times \$120 \times .9}{2{,}000} = \$0.65 \text{ per hour worked.}$$

For vacations and health insurance, information on eligibility and participation in benefit plans is collected at initiation. The information includes the distribution of workers by length of service (used to determine the average number of vacation days taken by employees) and the fraction of workers participating in health insurance. When costs per hour worked for these benefits are calculated in subsequent quarters to measure the change in the cost of the benefits, the same eligibility and participation rates are assumed as at initiation. Holding these values constant for a sampled job eliminates the effects of shifts in the composition of the workforce on the measurement of cost changes. (For example, it eliminates the effect of a changing distribution of length of service, as might occur over a business cycle.)

The policy of holding usage of benefits fixed over the period that a job remains in the ECI extends to all benefits for which rate and usage data are collected.[5] In particular, the policy applies to overtime, so that the ECI is calculated on the assumption that a fixed number of overtime hours are worked in each quarter (equal to the amount observed in the initiation quarter). The implications of this policy with respect to overtime are discussed in a later section.

In only one instance is usage information updated when the cost of benefits is based on rate and usage data: when the benefit plan changes. For example, if a new set of health insurance plans were offered, or if the provisions of existing plans were changed, then new information would be collected on the number of participants in each plan, and the cost of health insurance would be calculated on the basis of the price of the new plans and the new distribution of participation. Another example of a change in benefit plan in which new information on usage of benefits would be collected is when the overtime premium changes. In this case, new information would be collected on overtime hours worked.

The two data collection approaches

As stated in the previous section, the Bureau has a preference for collecting ECI data in the form of rate and usage over data collected as expenditures. There are several reasons for this preference:

- The aim of the ECI is to measure the current cost of hiring labor services. Past expenditures may reflect different wages or benefit plans than currently exist.
- The ECI seeks to hold benefit usage constant when plan provisions remain constant. Usage is probably not held constant in expenditure data.
- The rate-and-usage approach usually permits the calculation of separate costs for each occupation in an establishment. An expenditure may yield just one cost for the establishment, requiring the costs to be prorated among occupations. Note, however, that it may be possible to obtain expenditure data for the specific jobs sampled.
- Expenditures may include unwanted costs that can be difficult to exclude from the survey because the respondent does not know whether they are included and what the amounts may be. For example, a life insurance expenditure might include life insurance costs for retirees.

The presumption, then, is that collecting data in the form of rates and usage renders the data more likely to be specific to the sampled job and to pertain to the current period. In reality, BLS data collectors sometimes cannot obtain rate and usage information for the sampled job. In that case, they must either fall back on rate and usage information for a broader occupational group or obtain expenditure data for the job or for a broader occupational group.

Often, a data collector may be able to obtain some rate or usage information for a benefit at the job level, but must gather other information for calculating the benefit's cost for an aggregation higher than the job. In the case of benefits that are available on a companywide basis, obtaining costs per hour from an aggregation higher than the job may be perfectly reasonable. Other times, applying higher level information to the sampled job is a necessary approximation. As an illustration of these points, consider an establishment that offers just one health insurance plan. The cost per participant for the plan probably does not vary across jobs in the establishment, so that the costs per participant at the company level are the same as they would be for the workers in a sampled job. What may differ, however, is the level of participation in different jobs. A data collector might not be able to obtain this usage information for the sampled job and might instead need to rely on participation rates for the company as a whole.[6]

Tables 1 and 2 show the sources of data in the ECI for March 2000 for several major types of benefit. The tables are based on an unedited code designating the source of the data, so the estimates should be accepted cautiously. Nevertheless, the tables give a sense of the source of data. Table 1 shows that there were about 30,300 sampled jobs in the database, including refusals and instances in which the plan exists, but costs are unavailable. Refusals accounted for about 5 percent of all sampled jobs on a weighted basis, while the percentage of jobs for which the plan existed, but costs were unavailable, ranged from about 9 percent to 23 percent. For the benefits listed in the table, costs were collected or there was no plan (which we know with certainty had zero cost) between 72 percent and 86 percent of the time (weighted).

For those jobs for which cost data were collected, table 2 shows how often rate and usage information was available for the specific job, how often rate and usage information was available for an aggregation of jobs, and how often some other source of data was used. When data elements from several different sources are used to generate a benefit cost for a job, the "poorest" of the data elements indicates the source. That is, for a given job, if rate and usage data for that job were mixed with expenditure data for an aggregation of jobs, then the benefit cost would be coded as coming from expenditure data. The category titled "other sources of data" includes both cases in which data were "estimated" and a small percentage of cases in which the data source was not recorded.[7] "Estimated" data represent situations in which at least one data element used to calculate a cost had to be estimated by the respondent. "Estimated" data may still be high in quality, as hard data might account for the majority of the elements in a cost calculation.

Table 2 also shows that rate and usage data for the specific job were most often available for holidays (93.0 percent) and vacation leave (85.9 percent). In contrast, rate and usage data for the specific job were available only 33.7 percent of the time for sick leave, which often comes from other sources. A closer examination of the data indicates that sick leave data are often "estimated."

The central point is that BLS data collectors attempt to obtain cost information that is as close to the sampled job and as close to the reference period as possible. However, limitations in the data available from the respondent necessitate compromises in what is collected.

Infrequent payments

Many forms of compensation are paid out relatively smoothly over time or exist as part of a well-specified benefit package, so that their costs can be easily associated with the reference period. The most obvious example of this is hourly wages, which are paid for labor services in the reference period. Even a schedule of paid holidays (which are not necessarily taken during the reference period) can be viewed as part of a compensation package that exists during the reference period, and its annualized hourly costs can be attributed to that period. But some components of compensation, such as bonuses, are paid infrequently (less than quarterly), and whether and how much will be paid in the future is uncertain. This uncertainty raises the question of how these payments should

Table 1. Cost data collected in the ECI, by type of benefit, March 2000

[In percent]

Cost data	Defined-contribution pension	Defined-benefit pension	Health insurance	Holiday leave	Vacation leave	Sick leave
Number of sampled jobs (unweighted)	30,269	30,269	30,269	30,269	30,269	30,269
Total	100.0	100.0	100.0	100.0	100.0	100.0
No plan	51.3	59.1	22.8	16.9	20.9	23.2
Cost data collected	30.1	26.9	54.2	68.3	58.5	49.1
Plan exists, cost unavailable	13.4	8.9	18.1	10.2	16.0	22.8
Refusals	5.1	5.1	5.0	4.7	4.6	4.9

NOTE: Percentages are based on weighted data.

Table 2. Type of cost data collected in the ECI, by type of benefit, March 2000

[In percent]

Type of cost data	Defined-contribution pension	Defined-benefit pension	Health insurance	Holiday leave	Vacation leave	Sick leave
Number of sampled jobs with cost data collected (unweighted)	11,256	9,108	17,407	21,224	17,549	14,237
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rate and usage for—						
Specific job	44.8	58.2	51.5	93.0	85.9	33.7
Agreggation of jobs	7.8	1.9	10.7	.3	1.6	9.9
Expenditures for—						
Specific job	.3	.7	.4	.0	.0	.0
Aggregation of jobs	31.4	32.9	23.3	.9	1.7	2.5
Other sources of data	15.7	6.3	14.1	5.9	10.7	53.9

NOTE: Percentages are based on weighted data.

be incorporated into the ECI.

One approach is to associate infrequent payments solely with the quarter in which they are paid. For example, holiday bonuses paid in December could be associated with the ECI covering the December quarter. To the extent that infrequent payments tend to be made by most employers around the same time (such as the end of the year), this treatment creates spikes in the nonseasonally adjusted index. However, these spikes could be removed in the seasonally adjusted ECI. In that case, only unusual bonus payments would move the seasonally adjusted index.

The ECI treats infrequent payments differently. Costs for an infrequent payment are included in the quarter in which the payment is made and in each subsequent quarter, until a new payment is made. For example, if a $500 bonus were paid in December 2000 and a $600 bonus were paid in December 2001, then $500 would appear in the ECI data for December 2000 and March, June, and September of 2001, and $600 would appear in the December 2001 data.

One rationale for the ECI approach to infrequent payments applies the logic used for costing holidays. Bonuses are part of a total compensation package that an employee anticipates receiving and an employer anticipates paying. So the future costs of bonuses are associated with the reference quarter in the same way that the costs of holidays are annualized and associated with each quarter. But what makes the case of a bonus more difficult is that the amount of the payment may not be the same in the future, nor might an employee even be given a bonus at all. Accordingly, using the past bonus amount in each future quarter might be viewed as substituting a proxy for the uncertain future payment.

The ECI approach of carrying the bonus amount forward eliminates the spikes that would be induced if these payments were incorporated into the ECI only in the quarter in which they were paid. Thus, the approach obviates the need for seasonal adjustment. In the early years of the survey, this approach may have served as a means of seasonally adjusting the data, when available time series were insufficient to allow the analyst to use formal seasonal adjustment techniques. Such a rationale is no longer applicable, as there are now ample quarters of data to permit seasonal adjustment. A disadvantage of the ECI approach is that it is more difficult to attribute cost increases to the quarter in which they occur. As noted earlier, the approach also implicitly assumes that infrequent payments will persist into the future when, in fact, they may not. Which way is the best to incorporate infrequent payments into the index is currently under review.

Calculating the ECI

In calculating the national ECI for compensation costs, as well as many of the ECI's subindexes, the myriad wage and compensation cost quotes for individual jobs must be aggregated into a single number. The aggregation process involves two key steps. The discussion that follows describes the process in general terms; mathematical details appear in Appendix A, and a numerical example is given in Appendix B.[8]

Each private-sector establishment surveyed for the ECI is placed within 1 of 72 industry groupings (largely two-digit Standard Industrial Classification (SIC) industries), and each job surveyed is placed within 1 of 10 major occupation groups, forming 720 private-sector cells.[9] Further, 19 State and local industry groups form 190 public-sector cells (19 industries times 10 major occupational groups). Each job quote in the survey falls within exactly 1 of these 910 cells. The first step in the calculation of the ECI involves aggregating the data for all of the job quotes within a cell in order to obtain an average for each cell. The second step involves aggregating across cell averages to obtain the ECI.

Consider first the second step in the calculation. The ECI is designed to indicate how the average compensation costs of employers would have changed over time if the industrial-occupational composition of employment had not changed from a designated base period. Thus, the ECI is calculated as

the weighted sum of the changes in compensation costs for all industry-occupation cells, where the weighting factor for each cell is its share of total labor compensation in the base period. An index calculated with the use of base-period weights in this fashion is termed a Laspeyres index. Since March 1995, 1990 employment counts from the BLS Occupational Employment Survey have been used to calculate the base-period weights for ECI cells.[10]

Now consider the first step in the calculation of the ECI, namely, the estimation of the mean change in compensation costs for each industry-occupation cell. The simplest way to estimate this change for any cell between period 0 (the base period) and period *t* (the reference period) would be to compare average compensation for that cell in the base and reference periods. But because the ECI sample changes over time due to replacement, this involves comparing averages across jobs that might not be strictly comparable. For example, a given cell in the base period might include compensation costs for an urban planner, while the same cell in the reference period might include compensation costs for an economist who replaced the urban planner in the sample.

Accordingly, to ensure that changes in compensation costs are compared across comparable jobs, the ECI takes an approach different from that mentioned in the previous paragraph. To start, the mean change in a cell's compensation cost between period 0 and period 1 is estimated as the ratio of the average compensation for that cell's jobs in period 1 to that in period 0. Average compensation in each period is calculated as the weighted arithmetic average of compensation costs for each job in the cell, where the weights are sampling weights that are roughly equal to the inverse of the probability of being selected for the sample. To ensure that this estimate is not affected by a change in the sample, only those jobs that are in the sample in both periods are used in the calculation. A similar procedure is utilized to calculate the mean change in compensation between periods 1 and 2, between periods 2 and 3, and so on. The change in mean compensation from period 0 to period *t* for a given industry-occupation cell is then calculated as the product of the individual per-period changes.

Alternative index formulas

The Laspeyres formula used to calculate the ECI is but one index formula that could be used to measure employment cost changes. Previous research on the CPI—also a Laspeyres index—suggests that the form of the index may matter. Thus, an important question is whether the estimated growth of employment costs depends on the particular index formula chosen or whether the ECI is largely insensitive to the form of the index. Research suggests that the latter is the case.

Before discussing alternatives to the Laspeyres formula, it is important to stress that the current ECI is not a pure Laspeyres index. An important feature of Laspayres indexes is that they hold constant the market basket of commodities (labor in the ECI, goods and services in the CPI) at the base period. Over time, market baskets change in composition, so that the fixed base-period market basket becomes less relevant in describing the current period. The ECI deals with this issue by updating the base-period employment distribution infrequently.[11] In June 1986 and March 1995, new employment distributions were used to calculate current employment cost changes. The new distributions were introduced into the calculation of the index by taking the previous period's index value, calculated with the use of the old base-period employment distribution, and multiplying it by the reference-period cost change, calculated with the use of the new employment distribution. This new distribution becomes the source of new base-period weights for all future quarters, until yet another employment distribution is introduced.

Rather than constructing indexes by means of base-period weights, other indexes can be calculated by using other weighting schemes. A Paasche index, for example, uses reference-period quantities to aggregate the price changes for cells. Thus, if the ECI were computed as a Paasche index, it would be calculated as the weighted sum of the changes in compensation costs for all of the industry-occupation job cells, where the weighting factor for each cell is the cell's share of total compensation in the reference period. A Paasche index for employment costs answers the question, "How would employment costs have risen over time if employment had always been distributed among industries and occupations as they are in the reference period?"

It would make no difference whether reference- or base-period employment distributions were used to calculate an employment cost index if the pay of all jobs rose at the same rate. But this is not the case, so which index rises faster depends on which index weights jobs with faster compensation cost growth more heavily. Economic theory predicts the relative sizes of the Laspeyres and Paasche indexes. Consider first an example from consumer theory. Suppose that consumers consume both hamburger and steak, and suppose that the price of steak rises faster than that of hamburger. Then economic theory predicts that consumers will consume more hamburgers and less steak over time. That is, they will tend to substitute hamburger for steak. This substitution effect implies that in the reference period a Laspeyres index of price increase will tend to be larger than a Paasche index, because the base-period consumption pattern (used for the Laspeyres index) is more heavily weighted toward the commodity (steak) whose price is rising the fastest. By contrast, the Paasche index weights the price increase for hamburger (the price of which has risen more slowly) more heavily.

Theoretically, substitution bias may also affect the relative values of Laspeyres and Paasche indexes for compensation costs. Suppose that a hospital hired both nursing aides and

nurses, and suppose further that the pay of nurses increased faster than that of nursing aides. Then the hospital might tend to substitute nursing aides for nurses, using the aides to perform the less technical duties formerly conducted by the nurses. Because fewer nurses and more nursing aides are employed in the reference period than in the base period, the Paasche index will give greater weight to the group of workers with the slower growing compensation costs. Thus, the Paasche index will indicate slower compensation cost growth than the Laspeyres index, due to a substitution effect. By ignoring this substitution effect, the Laspeyres index will tend to overstate employers' labor costs in the *reference* period, while the Paasche index, weighting the cells with slower rising compensation costs more heavily, will tend to overstate employers' labor costs in the *base* period.[12]

Because economic theory predicts that the Laspeyres index tends to overstate increases in labor costs, whereas the Paasche index tends to understate them, it might seem sensible to take an average of the two indexes. In fact, the Fisher ideal does precisely that, being a geometric average of the Laspeyres and the Paasche indexes.[13] Another index similar in spirit is the Törnqvist index. In the context of employment costs, it is a weighted geometric mean of cell cost changes, where the weights are the average shares of spending on the various types of labor in the base and reference periods. (See Appendix A for a mathematical treatment of all of these indexes.)

What is the empirical evidence regarding the impact of substitution effects on indexes? Ana Aizcorbe and Patrick Jackman's research on the CPI suggested that, by ignoring the substitution effect, the CPI overstated the annual increase in the cost of living by about 0.2 percent per year for the period 1982–91.[14] But the evidence for compensation cost growth is very different. A study by Michael Lettau, Mark Loewenstein, and Aaron Cushner showed that the ECI is *not* very sensitive to the choice of index.[15] Furthermore, contrary to the predicted impact of substitution, the growth in compensation costs for the Paasche index was slightly higher than for the Laspeyres (0.12 percent per year over the period from September 1981 to December 1994).

The explanation for the apparently contradictory result for compensation costs is that factors other than a substitution effect are at work. One hypothesis is that over the period studied by Lettau, Loewenstein, and Cushner—the 1980s and the first half of the 1990s—employment in goods-producing industries (particularly manufacturing) declined, while employment in service-producing industries increased. At the same time, pay in service-producing industries grew faster than in goods-producing industries. The movement in pay and employment in favor of the service sector reflects a growing demand for labor in that sector relative to the goods-producing sector. The Paasche index, which gives greater weight to service sector employment, weights the faster growing service sector pay more heavily than the Laspeyres index does.

While the research of Lettau, Loewenstein, and Cushner does show this interesting pattern, it also shows that the ECI is relatively insensitive to the method of weighting changes in compensation costs and, hence, the particular index that is used. This insensitivity is probably due to the fact that employment shares change slowly over time, so that the weights of the various indexes are not dramatically different.

In response to interest from users, the Bureau intends to release a variety of indexes in addition to the Laspeyres index.

Variable pay and stock options

Some analysts believe that compensation practices are undergoing marked changes, with a growing emphasis on more variable forms of pay.[16] This trend purportedly includes greater reliance on bonuses and stock options. If there is such a trend, how is it reflected in the ECI?

The ECI captures many forms of variable pay that supplement straight-time wages and salaries, including overtime pay, shift differentials, and cash bonuses. The latter are classified as either production or nonproduction bonuses. Production bonuses are cash payments that are linked to a worker's own production through a formula such as a sales commission or piecework rate. They are included in the wage and salary component of the ECI. Nonproduction bonuses include a wide variety of other cash payments: yearend or holiday bonuses, lump-sum bonuses paid in lieu of wage increases, profit-sharing bonuses, contract-signing bonuses, and bonuses paid to retain incumbent employees.[17] These payments, which in some cases can be relatively large, are included in the benefits component of the ECI. Until June 2000, the ECI excluded hiring bonuses paid to induce an individual to accept employment and referral bonuses paid to employees for recommending an applicant who is hired by the company. The ECI now includes these bonuses as well.

The ECI currently excludes compensation in the form of stock options. Traditionally, the incidence of payment in the form of stock options has been low, and stock options were not believed to have the potential to affect the ECI greatly. However, in light of the apparent growing use of this form of compensation, the Bureau fielded a nationally representative survey to determine the incidence of new stock option grants in 1999. The survey, of about 2,100 establishments, was fielded between February and June of 2000.

The results of the survey showed that 1.7 percent of all private-industry employees and 5.3 percent of employees in publicly held companies received new stock option grants in 1999. As expected, grants were more prevalent among higher paid employees (12.9 percent of all employees earning $75,000 or more), larger establishments, and certain industrial sectors—the highest being publicly held durable-goods-manufacturing establishments (14 percent of employees) and publicly held companies in finance, insurance, and real estate (13.9

percent of employees). While the generally low incidence of stock option grants suggests that the overall ECI might be little affected by the omission of stock options, the same might not be the case for high-incidence sectors. Among current BLS research projects is a study examining the feasibility of conducting a survey of employers' costs of stock options.

Capturing the cost of stock options in the ECI is problematic, as they do not lend themselves to easy measurement with currently available data. In the United States, two major types of stock options have emerged: incentive stock options and nonqualified stock options. These two types of options differ in tax treatment and, therefore, also in whether and, if so, when they are captured in administrative data systems. The most prevalent stock option is the nonqualified one. When such an option is exercised, an employee incurs a tax liability equal to the difference between the market and exercise prices. For tax purposes, this difference is reported as wages and salaries. At the same time, the company takes a tax deduction of the same magnitude for employee compensation. The company does not need to report this deduction on its financial statements.

In contrast to nonqualified stock options, income to workers derived from incentive stock options is taxable as capital gains rather than ordinary income. Incentive stock options have tax advantages over nonqualified options to the employee, because the long-term capital-gains tax rate is generally lower than the employee's ordinary income tax rate. But companies cannot deduct incentive stock options for tax purposes and are subject to a limit of $100,000 on the value of stock on the date on which it was granted (a limit that does not apply to nonqualified stock options).

Because exercising stock options generates a taxable event, it would seem feasible, from a data availability standpoint, to value stock options when they are exercised.[18] But, conceptually, it is not clear that that would be the appropriate time to do so. The problem is that the ECI measures the cost of compensation to employers, and, arguably, the employer realizes the cost of stock options before they are exercised. Ultimately, the exercise of stock options is covered by the employer either through its own stock purchases or through the issue of new stock. The employer's costs associated with the former are explicit, while there are implicit costs associated with issuing new stock in the form of stock dilution, which affects the stock's price and hence the ability of the company to raise capital through the stock market. Regardless of the way the company covers stock option exercises, the market anticipates the cost of the options long before they are exercised, thus affecting the company's cost of capital in advance of exercising the options.

The preceding discussion suggests that it might be appropriate to value stock options for the ECI when they are granted. The limited availability of data and the complex nature of the required economic model, however, will pose challenges. In its Statement 123, the Financial Accounting Standards Board requires public companies to disclose the "fair value" of stock option grants by using an "option-pricing model," such as the Black-Scholes model. This model requires a variety of information, including the price of the stock when options are granted, an assumed risk-free rate of interest, a measure of the long-run variability of the company's stock, and an indication of how long the options are to be held before they are exercised. Companies are responsible for determining the economic and financial assumptions necessary for the model. However, Statement 123 allows companies to continue to use Accounting Principles Board Opinion 25 to determine net income, which frequently results in no expense being recorded. If this method is used to determine net income, companies must report stock option costs under the "fair-value" method in footnotes to their financial statements.

An additional complication arises in valuing stock options before they are exercised. Because stock options typically offer some employee discretion regarding when they are exercised, options could involve an investment decision as well as a compensation component. Employees may exercise their options as soon as they are vested. Arguably, one could view the value of stock options when they become vested as an accrual of wages and salaries over the period from the date the stocks are granted to the vesting date and consider that value to be disbursed at the time of vesting. Then, any additional return from holding the options beyond the vesting date could be viewed as a return on investment. If correct, this view suggests that only the compensation component of stock option values should be attributed to the ECI. However, splitting the two components will be difficult, because tax data and company financial information are insufficient to effect the split.

The Bureau is conducting research into the feasibility of costing stock options. A number of questions will be addressed: In what ways are stock options similar to the uncertain liabilities employers incur when they promise retirement benefits? Do these similarities have implications for the treatment of stock options in the ECI? Given constraints imposed by the data, is valuing stock options when they are granted consistent with ECI concepts? Is it relevant to the calculation of the ECI whether options have both a compensation and an investment component, and if so, how is the compensation component incorporated into a costing algorithm? With regard to valuing stock options when they are granted, is sufficient information provided by financial statements under the standard promulgated by the Financial Accounting Standards Board, or will supplementary information be required from respondents or other public sources? Is it appropriate to rely on company-made choices about the option-pricing model and the parameters of that model, or should the Bureau assume a standard model, make standard assumptions about certain parameters, such as the risk-free interest rate, and rely on company information for the other parameters? How will stock options be

valued for privately held companies? Given that stock options are relatively infrequently granted, is the ECI the appropriate survey vehicle to capture their costs, or is a special survey required which disproportionately surveys sectors that grant their options more often? Finally, with what frequency should stock options be valued?

Business cycles and the ECI

Certain features of the ECI tend to make its wage and compensation indexes less variable over the business cycle than other measures of compensation, such as those which measure average hourly earnings. These features do not all work in the same direction.

First, during business cycle upswings, hours worked per week tend to increase through the use of more overtime. The average hourly rate of pay for straight-time work does not change, but because overtime is paid at a higher rate for hourly workers (who are not exempt from the provisions of the Fair Labor Standards Act), the average hourly pay for all hours worked increases.

Second, sectors of the economy differ in their cyclicality. Goods-producing industries tend to be more procyclical than do service-producing sectors. In addition, jobs within an industry may differ in cyclicality. For example, blue-collar jobs traditionally have been more cyclical than white-collar jobs. To the extent that these sectors and jobs differ in average pay, the average pay for all workers will tend to vary over the cycle as the composition of the workforce varies.

Third, traditionally, the employment of lower paid, less experienced workers has tended to be more procyclical than that of more experienced workers. During business cycle downturns, less experienced workers may be laid off first (so average pay would tend to go up, everything else being equal), while during upswings, less experienced workers are the last to be rehired. This factor would tend to make an average hourly earnings series move less cyclically than it would otherwise.

Fourth, some components of compensation display joint cyclical or countercyclical behavior. For example, incentive pay and nonproduction bonuses both tend to increase during cyclical upturns. Further, business cycle downturns are associated with slackening labor markets, during which compensation tends to rise less than during upturns, everything else being equal. In contrast, new workers who are hired during upswings may be eligible for fewer vacation days, lowering the average cost of vacations and dampening increases in average compensation costs.

The way the ECI is currently constructed tends to dampen some, but not all, of these movements. As mentioned previously, the ECI generally holds overtime usage constant within a job at the level observed in the initiation quarter. New information on overtime hours is not collected for the job, except in the unlikely event that there is a change in the overtime premium. Hence, the benefit component of the ECI does not currently reflect variations in the usage of overtime over the business cycle.[19] The policy of holding overtime usage constant is under review. One option being considered is to use current overtime information that will be available from each cross-industry, cross-area replacement panel to update overtime for all sample units, generating an ECI that allows overtime to vary.

Another factor that tends to dampen movement of the ECI over the business cycle is the index's Laspeyres formulation. Because the ECI holds constant the distribution of employment across industries and across occupations, it is not influenced by the differing cyclicality of employment across jobs and sectors.

The ECI may, however, be influenced by employment changes in the experience profile of jobs. Data are collected every quarter on the average straight-time wage rate for jobs in the sample. As mentioned previously, these data are the average wages of all incumbents in the job. To the extent that the identity of the incumbents varies over the business cycle, the average wages may move cyclically. During downturns, less experienced, lower paid incumbents may be the first to be laid off. If so, the composition of incumbents would then shift toward those who are more highly paid, raising the average straight-time pay. Thus, ECI measures of average hourly straight-time pay, as well as measures of benefits, such as overtime premiums, that are tied to average straight-time pay, may contain a countercyclical component.

Another job-composition feature of the ECI suggests that it will be less procyclical than a measure of average earnings. Recall that the index collects data on a sample of company-defined jobs within each establishment. Whenever a worker in an ECI-sampled job is promoted to a higher level job, that worker moves out of the group of workers providing cost data for the lower level job. Thus, the ECI does not capture the worker's increase in pay. Further, if the worker was one of the higher paid workers in the lower level job, the average pay of the remaining workers in the sampled job will actually drop, everything else being equal. Consequently, to the extent that promotions occur more frequently during business upswings, a measure of average pay will tend to be more cyclical than will the ECI. (Note that it is conceptually appropriate in a quality-constant Laspeyres index not to measure the increase in pay stemming from a promotion, to the extent that the promotion is associated with an increase in the worker's productivity.)

The ECI does capture some cyclical components that are due to variations in compensation costs. Thus, declines in incentive pay and nonproduction bonuses during downturns are reflected in the index. The impact of slack labor markets, in the form of slower growing compensation costs for a fixed bundle of labor, also are captured. However, the ECI's approach to holding con-

stant the length-of-service distribution for calculating the cost of vacations means that the index does not vary as the length-of-service profile changes over the business cycle.

Employer cost and employee value[20]

Some forms of compensation are provided not as cash, but as noncash benefits. The ECI has developed methods for estimating the costs of these benefits to employers. But how do the costs relate to the value that employees attach to noncash compensation? For several reasons, it turns out that employer cost does not necessarily equal employee value.

Economists generally use the "cash-equivalent" approach to defining the value of noncash benefits. The cash-equivalent value is defined as "the minimum amount of additional cash compensation an individual would require to become just as well off as that individual would be if he or she received the noncash good."[21]

In a competitive labor market, one might expect that, for the "marginal worker" (the last worker hired), the cost of a non-legally required benefit would equal its value. Employers can compensate workers either in cash or in noncash benefits and would be indifferent between spending a dollar on the one or the other. Absent factors discussed next, in a competitive market where workers can negotiate over pay and benefits, the marginal worker would demand a mix of pay and non-legally required benefits that would equalize the value of the last dollar spent on each benefit with a dollar of cash compensation. For if this equality did not hold, employers could reallocate dollars between pay and benefits in such a way as to increase the value of the compensation package to the worker at no cost to themselves.[22] In the perfectly competitive situation just described, the cost of the benefit is equal to its value.

For several reasons, the idealized equality of employer cost and employee value does not hold for benefits that are not legally required. One reason is that some benefits are not subject to income taxes.[23] Because of this exemption, the marginal worker is expected to demand noncash benefits up to the point where the last dollar spent on benefits equals one dollar after taxes.[24] In that event, more of the benefit will be offered to the employee than would be the case without taxes, and as a result, employer cost will overstate the value of the benefit to the employee.

Another reason for the lack of equality between employer cost and employee value relates to the relatively uniform provision of some benefits to all workers in an establishment. For example, firms tend to provide only a limited range of choices of health insurance plans. In part, this uniformity stems from the aim of nondiscrimination, whereby tax rules stipulate that benefits are tax deductible only if they do not favor higher paid workers.

Still, while many benefits tend to be provided uniformly, employees will tend to value them differently. First, higher income workers will demand more of "normal" goods than will lower income workers.[25] Hence, because benefits are believed to be normal goods, higher income workers will tend to value a given amount of benefits more highly than lower income workers will. In contrast, two-earner families may receive duplicative health insurance that is valued less than it would be in one-earner families. Similarly, young, single individuals may value life insurance less. The diversity of values attached to benefits and the relative uniformity of the provision of some benefits imply that at least for some workers, employee value will not equal employer cost.

If the foregoing factors drive a wedge between employer cost and employee value for non-legally required benefits, the situation is exacerbated for legally required benefits. Workers and employers can at least negotiate over non-legally required benefits, so that, accounting for taxes, employer cost and employee value may not be greatly different. But legally required benefits are set outside this negotiating framework and tend to be uniform across workers, meaning that it is less likely that value equals cost for these benefits.

Other measures of compensation

The Bureau of Labor Statistics publishes two other measures of compensation costs that can be contrasted with the ECI. The Employer Costs for Employee Compensation (ECEC) series measures the cost, in cents per hour, of compensation items by major industry, occupation, region, size of establishment, full-time or part-time employment, and bargaining status. The reference period for these costs is the pay period that includes March 12. Unlike the ECI, which measures changes in compensation costs, the ECEC measures the level of compensation costs at a point in time. The same data that are used to produce the ECI are used to produce the ECEC, except that the ECEC is calculated with the current distribution of employment. The ECEC has the same scope of coverage as the ECI, in terms of benefits and workers surveyed. While comparisons of ECEC data can be made over time, the central purpose of that measure is to show how costs per hour distribute among wages, salaries, and benefits at a point in time.

The BLS Office of Productivity and Technology produces another measure of compensation costs, termed compensation per hour. This quarterly measure is reported as both an index of compensation costs and a percent change for U.S. business, nonfarm business, manufacturing, and nonfinancial corporations. Unlike the ECI (but similar to the ECEC), compensation per hour is calculated with the current distribution of employment. Hence, the measure can be affected by shifts in employment between industries and occupations.

Compensation per hour is calculated by dividing an estimate of aggregate compensation by an estimate of hours

worked. The numerator and denominator come from a variety of sources. Compensation costs in the numerator come largely from the national income accounts of the Bureau of Economic Analysis, supplemented with BLS imputations for the payment of labor services of proprietors. Hours-worked estimates in the denominator are derived from a variety of sources, including the BLS Current Employment Statistics program, Current Population Survey, and Hours at Work Survey.

The scope of compensation per hour is slightly broader than that of the ECI in terms of coverage of workers and compensation items. First, compensation per hour includes the self-employed (proprietors) and workers employed in Federal Government enterprises (agencies of the Federal Government that cover a substantial proportion of their operating costs by selling goods and services to the public and that maintain their own separate accounts; the U.S. Postal Service is one such agency). Second, compensation per hour includes tips and a measure of the value of realizations of stock options (that is, the income derived from the exercise of such options).[26] In contrast, the ECI does *not* include stock option costs to employers.

THE QUARTERLY EMPLOYMENT COST INDEX (ECI) measures the change in the price of labor. The ECI's Laspeyres formula holds the distribution of labor constant at a point in the past termed the base period. Research on the Consumer Price Index (CPI) indicates that a Laspeyres formulation overstates increases in the cost of living by failing to account for substitution effects. Because the ECI is constructed in a manner similar to the way the CPI is, one might ask whether the ECI, too, suffers from an upward bias, in its case in measuring the growth of labor costs. Research concludes that this is not the case. Alternative indexes—Passche, Fisher ideal, and Törnqvist—indicate similar compensation cost increases.

The ECI treats infrequent (less than quarterly) payments by including them in the quarter in which they are paid and in each subsequent quarter until a new payment is made. A rationale for this treatment is that infrequent payments are part of a total compensation package that an employee anticipates receiving and the employer anticipates paying. The past amount that is used serves as a proxy for the unknown future payment. But such a treatment spreads the impact of infrequent payments over many quarters, making it difficult to attribute the increase in cost to the quarter in which it occurs. Further, the assumption that future infrequent payments will persist may be questioned. The ECI policy with respect to the treatment of infrequent payments is under review.

The ECI captures the costs of many forms of variable pay, but does not capture the value of stock options. An incidence survey fielded by the Bureau in the first half of 2000 obtained information on stock option grants issued in 1999. Overall, only 1.7 percent of private-industry employees received grants that year, but some sectors—most notably, higher paid employees—were more likely to receive grants. The Bureau is researching approaches to estimating the costs of stock options in a manner consistent with the general philosophy underlying the calculation of the ECI. Data permitting, it is likely that stock options will be valued at the value they have at the time they are granted and that data will be collected in a special survey rather than in the ECI survey.

Certain features of the ECI tend to make its wage and compensation indexes less variable over the business cycle than are other measures of compensation, such as those which measure average hourly earnings. ECI features that tend to dampen cyclical movements in the index include holding both overtime usage and the distribution of employment constant. Further, the ECI does not pick up increases in pay from promotions that may be more prevalent during business cycle upswings. However, because the ECI tracks the average wage of workers in sampled jobs, it may be influenced countercyclically by cyclical changes in the experience profile of those jobs. During downturns, lower paid workers with lower tenure are likely to be laid off first, raising the average wages of jobs sampled in the ECI. Finally, as with average hourly earnings, the ECI is influenced procyclically by changes in wage pressures due to fluctuations in the demand for labor. These pressures affect both wage and salary increases, as well as the size of incentive pay and nonproduction bonuses.

The ECI measures employer costs for employee benefits. In an unconstrained market, the quantities of benefits offered to different employees would vary in such a way as to equate each employee's marginal benefit to the employer's marginal cost. For several reasons, however, employer costs are *not* equal to employee value. One reason is that some benefits (for example, health insurance) are not subject to income taxes. For these benefits, the cost to the employer is expected to exceed the value to the employee. Another reason is the relatively uniform provision of benefits to all workers in an establishment (due in part to nondiscriminatory tax rules). Adjustments in benefit amounts to each worker (to equalize marginal cost with marginal benefit) are not possible, resulting in different valuations of the benefits package by different workers. Finally, the equality of employer cost and employee value may not hold for legally required benefits.

The Bureau produces two other measures of compensation costs that may be contrasted with the ECI. The Employer Costs for Employee Compensation (ECEC) uses ECI data to measure the cost, in cents per hour, of compensation items by industry, occupation, and other worker and establishment characteristics. Unlike the ECI, the ECEC is calculated with the current distribution of employment. The BLS Office of Productivity and Technology produces another measure of compensation costs, termed compensation per hour. This quarterly measure is reported as both an index of compensation costs and a percent change for U.S. business, nonfarm business, manu-

facturing, and nonfinancial corporations. Unlike the ECI (but similar to the ECEC), compensation per hour is calculated with the use of the current distribution of employment.

The ECI is one of the U.S. Government's principal statistical series for measuring inflation in the economy. Understanding its characteristics is helpful for interpreting how it measures cost pressures that may lead to inflation in the price of goods and services. □

Notes

[1] A primary sampling unit consists of a county or a number of contiguous counties. Thirty-three primary sampling units are selected with certainty. (That is, they would appear in *any* sample that was drawn.) Others are selected with a probability proportional to their employment. For more information about samples from the National Compensation Survey, see Kenneth J. Hoffman, "New sample areas selected for BLS National Compensation Survey program," *Compensation and Working Conditions*, spring 1997, pp. 27–31.

[2] In the late 1990s, many establishments remained in the ECI sample for more than 5 years, to accommodate a transition to a new sample design.

[3] A longitudinal panel becomes unrepresentative over time if it fails to pick up newly created jobs and establishments. Prior to the current cross-industry replacement scheme and in between sample replacement, the ECI sample was replenished with "birth samples"—that is, samples of newly created establishments. However, the ECI jobs were not replenished with birth samples of jobs within the establishments remaining in the sample, so the distribution of jobs in panels of establishments could become outdated.

[4] The average rate of usage of vacation time (12.5 days in this example) is calculated as a worker-weighted average, not an hourly weighted average.

[5] When expenditure data, rather than rate and usage data, are collected for a benefit, it is not possible to hold usage constant. Quarterly variations in the cost of benefits in expenditure data may occur even when usage of benefits is held constant. Also, note that while tenure profiles are held constant in calculating vacation costs, changes in average tenure within a sampled occupation may still move the average wage used to price the cost of vacation time.

[6] In some cases, the data collector can obtain cost information only for multiple benefits combined (for example, health and life insurance together). In those cases, the Bureau allocates aggregate costs among the individual benefit items.

[7] Consistent with quality concerns about the data source field, the jobs contributing to table 2 should never have a code which indicates that data are not available. Despite this, they do in a very small percentage of cases.

[8] The discussion that follows and Appendix A borrow heavily from Michael K. Lettau, Mark A. Loewenstein, and Aaron Cushner, "Is the ECI sensitive to the method of aggregation?" *Monthly Labor Review*, June 1997, pp. 3–11.

[9] Some groupings collapse two-digit SIC's (the finance, insurance, and real-estate (FIRE) industry is an example), others four-digit SIC's, and still others three-digit SIC's (health and education). Prior to March 1995, only nine major occupation groups were used.

[10] From June 1986 to December 1994, employment counts from the 1980 Census of Population were used as weights. Prior to June 1986, employment counts from the 1970 Census of Population were used.

[11] Similarly, the CPI updates its market basket of goods and services infrequently.

[12] Absent replenishment of the sample, the ECI holds employment distributions constant in two ways. Across the 910 industry-occupation cells, employment is currently held constant at the March 1995 employment distribution of the Occupational Employment Survey, as previously discussed. Within cells, absent both sample replenishment and attrition, the employment distribution is held constant by holding the sample weights fixed. Sample attrition may lead to some within-cell reweighting. Further, as samples are replenished, the within-cell weights may shift across jobs, reflecting a change in the employment distribution within cells. Thus, the ECI does reflect some within-cell substitution.

[13] That is, the Fisher ideal is the square root of the product of the Laspeyres and the Paasche indexes.

[14] Ana M. Aizcorbe and Patrick C. Jackman, "The commodity substitution effect in CPI data, 1982–91," *Monthly Labor Review*, December 1993, pp. 25–33.

[15] Lettau, Loewenstein, and Cushner, "Is the ECI sensitive."

[16] David Lebow, Louise Sheiner, Larry Slifman, and Martha Starr-McCluer, "Recent Trends in Compensation Practices," Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series no. 1999–32, working paper, 1999.

[17] Recently, the Bureau conducted a quality control review of the data on retention bonuses to confirm that data were being captured correctly.

[18] ECI data are collected from employers, so capturing exercise cost data might be easier in the case of the more prevalent nonqualified stock options.

[19] Recall that premium pay for overtime appears in the benefit portion of the ECI; the wage and salary measure includes only straight-time pay.

[20] This section borrows heavily from Melissa Famulari and Marilyn E. Manser, "Employer-provided benefits: employer cost versus employee value," *Monthly Labor Review*, December 1989, pp. 24–32.

[21] *Ibid.*, p. 25.

[22] That is, suppose that the value to the employee of the last dollar spent on a benefit was less than one dollar. Then the employer could reduce expenditures on the benefit by a dollar and give that dollar to the worker as cash compensation instead, making the worker better off.

[23] Taxation of benefits varies. Cash payments for paid leave, overtime, and nonproduction bonuses, included as benefits in the ECI, are generally taxable in the year in which they are paid. Contributions to retirement plans are generally tax deferred until payments are made to the employee upon retirement or some other kind of withdrawal from the labor force. Insurance premiums are generally not taxed.

[24] Suppose instead that the compensation package were such that the value of benefits equaled one dollar before taxes, and suppose that the tax rate were t. Then the employer could spend one less dollar on cash compensation (costing the employee only $1 - t$ dollars after taxes) and give the employee benefits equal to one additional dollar. The employee would then be better off. This substitution of benefits for cash continues as the value of additional dollars of benefits declines, to the point where the value of an additional dollar of benefits equals a dollar of pay after taxes.

[25] In economic theory, a "normal" good is defined as a good whose quantity demanded increases with income.

[26] Stock options are included in compensation to the extent that they are reported as wages for unemployment insurance tax purposes, a principal source of compensation income in the national income accounts.

APPENDIX A: Laspeyres and alternative index formulas

Let W_{it} denote the mean compensation paid to workers in category i in period t, and let E_{it} denote the number of workers in category i employed in period t. Let 0 denote the base period. Then the Employment Cost Index (ECI) in period t is calculated as

$$(1)\ \mathrm{ECI}_t = \sum_i \alpha_i^L \frac{W_{it}}{W_{i0}} \times 100,$$

where

$$(2)\ \alpha_i^L = \frac{E_{i0}W_{i0}}{\sum_i E_{i0}W_{i0}}.$$

Out of the ECI sample in period τ, let I_τ denote the subsample of jobs corresponding to labor category i. In addition, let $W_{ij\tau}$ denote the compensation in period τ for the jth job quote in cell i, and let $W_{ij\tau-1}$ denote the corresponding compensation in period $\tau - 1$. Finally, let $s_{ij\tau}$ denote the sample weight corresponding to the jth job quote in cell i in period τ. Then the proportionate change, $r_{i\tau}$, in the average compensation paid to workers in category i between period $\tau - 1$ and period τ is estimated from

$$(3)\ 1 + r_{i\tau} = \frac{\sum_{j\in I_\tau} s_{ij\tau}W_{ij\tau}}{\sum_{j\in I_\tau} s_{ij\tau}W_{ij\tau-1}} = \sum_{j\in I_\tau} s_{ij\tau}' \frac{W_{ij\tau}}{W_{ij\tau-1}},$$

where $s_{ij\tau}' = \dfrac{s_{ij\tau}W_{ij\tau-1}}{\sum_{j\in I_\tau} s_{ij\tau}W_{ij\tau-1}}$ is the implicit expenditure weight for the jth job quote in cell i in period τ. The proportionate change in compensation for category i from period 0 to period t is then calculated as

$$(4)\ \frac{W_{it}}{W_{i0}} = (1+r_{i1})(1+r_{i2})\ldots(1+r_{it}).$$

If the ECI were computed as a Paasche index, one would use an equation like (1), but with weights defined by

$$(5)\ \alpha_{it}^P = \frac{E_{it}W_{i0}}{\sum_i E_{it}W_{i0}}$$

The Fisher ideal index is given by

$$(6)\ F_t = L_t^{1/2} P_t^{1/2},$$

where L_t is the Laspeyres index at time t and P_t is the Paasche index at time t. The Törnqvist index is

$$(7)\ T_t = \prod_{j=1}^{N} (W_{jt}/W_{j0})^{\alpha_j^T} \times 100,$$

where

$$(8)\ \alpha_j^T = (1/2)W_{j0}E_{j0} / \sum_{k=1}^{N} W_{k0}E_{k0} + (1/2)W_{jt}E_{jt} / \sum_{k=1}^{N} W_{kt}E_{kt}.$$

Current employment weights are obtained by allocating industry employment from the Current Employment Survey among occupations using ECI sample weights.

APPENDIX B: How to Calculate an ECI Index for Wages and Salaries

Glossary of selected terms used in this example

- *MOG* stands for major occupation group, a grouping of occupations with one or more similar attributes.
- *SIC* stands for the standard industrial classification code of a group of economic activities.
- The *estimation cell* is the nexus of employment in a major occupation group (MOG) and an industry group (SIC); that is, the estimation cell is an "item" in our "shopping basket of labor services."
- The *base-period employment weight* is the number of employees in any estimation cell estimated by the Occupational Employment Survey (OES) for the base period. The use of constant base-period employment weights is what makes the ECI a Laspeyres index construction.
- The *establishment selection weight* is the inverse of the sample establishment's chance of having been selected from the universe of establishments. (For example, if the chance of having been selected is 5 out of 20, or 5/20, the inverse is 20/5, for a weight of 4.)
- The *occupation sample interval* is the number of employees in the sampled establishment that is represented by each occupation quote sampled from the establishment; that is, the occupation sample interval is the establishment employment divided by the number of quotes selected.
- The *final weight* is the product of the establishment weight and the occupation sample interval.[1]

General calculation steps

1. Calculate the weighted average hourly wage rate for the estimation cell, using observed wage rates multiplied by final weights.
2. Calculate the wage "cost weight" for the estimation cell.
3. Sum the cost weights over all estimation cells in the ECI series.
4. Compute the index value for the series.
5. Compute measures of the 3-month and 12-month change for the series.

Goal, assumptions, and facts for this example

- Goal: calculate the ECI wage and salary series for blue-collar occupations in construction.
- Assume that only the following occupation groups and industries are in the universe:
  1. Craft and skilled trades occupations (MOG E) in special trades contracting (SIC 17).
  2. Transportation and material moving occupations (MOG G) in general building contracting (SIC 15).
  3. Nonfarm laborer occupations (MOG H) in special trades contracting (SIC 17) and in general building contracting (SIC 15).

- Assume that the OES base-period employment for these occupation groups and industries (or estimation cells) were the following for the base period:[2]

MOG	SIC 15	SIC 17
E	0	50,000
G	10,000	0
H	30,000	50,000

- The survey data include two establishment sample units from each SIC (for a total of four such units) and two occupation quotes sampled from each establishment (for a total of eight units). Note that in actual survey operations the number of establishments sampled and the number of quotes sampled from each establishment are larger. They are limited here for simplicity.
- Givens for the sample establishments in the base period:

Establishment number	SIC	Employment	Selection weight	Occupation sample interval
1	15	100	200.0	50
2	15	200	100.0	100
3	17	400	125.0	200
4	17	800	62.5	400

- Givens for the sample occupations in the base period:

Establishment number	Occupation number	MOG	Average hourly wage	Final weight
1	1	G	$20.00	10,000
1	2	H	10.00	10,000
2	1	G	15.00	10,000
2	2	H	7.50	10,000
3	1	E	25.00	25,000
3	2	H	10.00	25,000
4	1	E	20.00	25,000
4	2	H	11.00	25,000

- Givens for the occupations in the quarter following the base period:
  Occupation 1 in establishment 3 gets a $2.00/hr raise to $27.
  Occupation 2 in establishment 4 gets a $1.00/hr raise to $12.

Calculation steps

1. Calculate the weighted average hourly wage rate for the four (MOG-SIC) estimation cells in the base period, using observed wage rates, establishment selection weights, and occupation sample intervals:
   a. For each estimation cell, sum the products of each quote's average hourly wage and its final weight.
   b. For each estimation cell, sum the final weights over all quotes.
   c. For each estimation cell, divide a by b to get the average hourly wage.

Estimation cell	a	b	Average hourly wage
MOG G, SIC 15	$350,000	20,000	$17.50
MOG H, SIC 15	175,000	20,000	8.75
MOG E, SIC 17	1,125,000	50,000	22.50
MOG H, SIC 17	525,000	50,000	10.50

2. Calculate the wage "cost weight" for the estimation cell by multiplying the average hourly wage by the OES employment for the base period:

Estimation cell	Average hourly wage	OES employment	Wage cost weight
MOG G, SIC 15	$17.50	10,000	$175,000
MOG H, SIC 15	8.75	30,000	262,500
MOG E, SIC 17	22.50	50,000	1,125,000
MOG H, SIC 17	10.50	50,000	525,000

3. Sum the wage cost weights over all estimation cells in blue-collar occupations in construction: **$2,087,500**.
4. Calculate the weighted average hourly wage rate for each estimation cell in the quarter after the base period, thereby reflecting new wage rates (boldface type denotes a change from the base period):

Estimation cell	a	b	Average hourly wage
MOG G, SIC 15	$350,000	20,000	$17.50
MOG H, SIC 15	175,000	20,000	8.75
MOG E, SIC 17	**1,175,000**	50,000	**23.50**
MOG H, SIC 17	**550,000**	50,000	**11.00**

5. Calculate a new wage cost weight for each estimation cell by computing the percent change in the average hourly wage rate since the previous quarter and applying the percent change computed to the previous quarter's wage cost weight to get the current quarter's wage cost weight (in this example, the previous quarter just happens to be the base quarter):

Estimation cell	Percent change in average hourly wage	Previous quarter's wage cost weight	Current quarter's wage cost weight
MOG G, SIC 15	0.00	$175,000	$175,000
MOG H, SIC 15	0.00	262,500	262,500
MOG E, SIC 17	4.44	1,125,000	1,174,950
MOG H, SIC 17	4.76	525,000	549,990

6. Sum the wage cost weights for the current quarter over all estimation cells in blue-collar occupations in construction: **$2,162,440**.
7. Compute the current quarter's index to equal 100 × (current quarter's aggregate wage cost weight/base quarter's aggregate wage cost weight), rounded to 0.1: 100 × (2,162,440/2,087,500) = **103.6** for blue-collar occupations in construction.
8. Calculate the 3-month percent change equal to [(current quarter's index/previous quarter's index) − 1] × 100, rounded to 0.1 (in this example, the previous quarter just happens to be the base quarter): [(103.6/100.0) − 1] × 100 = **3.6**.
9. Calculate the 12-month percent change in a similar fashion.

The preceding methods work for each succeeding quarter if one follows steps 4–9.

Notes to Appendix B

[1] This description simplifies the calculation of the final weight in this example. In the actual ECI, the final weight is the product of the area weight, establishment weight, occupation sample interval, establishment nonresponse adjustment, occupation nonresponse adjustment, documentation factor, and rotation factor.

[2] In normal operations, there would never be estimation cells with zero OES base-period employment. These zeros appear only for simplicity in this example.

Family and medical leave: evidence from the 2000 surveys

Seven years after the Family and Medical Leave Act, more employees are taking leave for family or medical reasons, and fewer report that they need leave, but are unable to take it; many employers offer leave over and above that required by the Act, and most report no adverse effects on their business

Jane Waldfogel

This article highlights the key findings on family and medical leave policies and practices from two new surveys of employees and establishments conducted by Westat for the Department of Labor in the summer and fall of 2000. The new surveys provide a window on the family and medical leave experiences of employees and employers 7 years after the enactment of the Family and Medical Leave Act (FMLA) and 5 years after the last surveys on family and medical leave were conducted.[1]

Prior to the enactment of the FMLA in 1993, the United States had no national family and medical leave legislation, making the Nation an outlier among other industrialized countries.[2] The Pregnancy Discrimination Act of 1979 required establishments that already offered temporary-disability programs to cover pregnancy as they did any other disability, but the Act did not mandate that establishments actually offer such programs. Some employees had access to family or medical leave through union contracts, employer policies, or State statutes, but coverage under these provisions was rarely as comprehensive as coverage under the FMLA. Indeed, many employees had no family or medical leave coverage prior to the passage of that legislation.

The FMLA, which was enacted by Congress and signed by the President in February 1993, went into effect in August of that year. The Act requires establishments with 50 or more employees to provide up to 12 weeks of unpaid, job-protected leave per year to eligible employees who need leave for a reason specified under the law (that is, to care for a newborn, a newly adopted child, or a newly placed foster child, to care for a child, spouse, or parent who has a serious health condition, or to treat one's own serious health condition). In order to be eligible, an employee must have worked for the employer for at least 12 months and at least 1,250 hours that year.

Previous research on the FMLA

Two surveys on family and medical leave were conducted in 1995 for the bipartisan Commission on Family and Medical Leave: an employee survey, conducted by the Institute for Social Research at the University of Michigan, and an establishment survey, conducted by Westat. The results of these two surveys, and the rest of the Commission's findings, were presented in the major report, *A Workable Balance: Report to Congress on Family and Medical Leave Policies*, released in 1996. (See note 1.)

The 1996 report concluded that the overall impact of the FMLA on employees had been positive. The report also concluded that the implementation of the law had not caused the types of problems for employers that some had anticipated. Among the most important find-

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ings in this regard were the following:

- *The law led to increased family and medical leave benefits for employees.* Two-thirds of covered establishments reported that they changed some aspect of their family or medical leave policies to come into compliance with the law, and covered establishments were much more likely than noncovered establishments to offer family and medical leave.
- *The law had little or no impact on covered establishments' operations in other respects.* More than 9 in 10 covered establishments said that the FMLA was relatively easy to administer, and most said that the law had no noticeable effect on their business performance.
- *The work of those who took leave was typically covered by other employees.* Most employees took short leaves (of median length 10 days, with 90.0 percent lasting 12 or fewer weeks), and their work was typically covered by being temporarily reassigned to other employees.

However, the 1996 report also pointed to some problems and limitations. Among the most important were the following:

- *Coverage under the law was far from universal.* Only 59.5 percent of private-sector employees worked for covered establishments, and only 46.5 percent were both covered and eligible.
- *Awareness of the law was limited.* A large share of employees at covered establishments (41.9 percent) had not heard of the law.
- *Although most employees were able to take leave when they needed to, a small share was not.* About 3 percent of employees said that they had needed leave for family or medical reasons sometime during the previous 18 months, but were not able to take it.
- *The lack of paid leave was a problem for many employees.* Although most employees were satisfied with the leave they were able to take, many who needed leave but did not take it said that the reason they did not was that they could not afford it.

In addition to the work conducted for the Commission on Family and Medical Leave, there have also been several independent studies of the FMLA. These investigations have found that family leave coverage increased as a result of the Act[3] and that the use of family leave also increased for some groups, such as mothers of newborns.[4] The impact of the FMLA on the use of leave seems to be smaller than its impact on coverage, which may reflect the existence of financial or other barriers to taking leave under the provisions of the Act. Such barriers may be particularly important for men, who had the greatest increase in parental leave coverage, but who have shown little increase in usage to date.[5]

Employee and employer experiences

The new surveys present a detailed look at employee and employer experiences with family and medical leave in 2000, 7 years after the implementation of the FMLA and 5 years after the last detailed surveys. Like the 1995 surveys, the new ones document the extent to which the Act and other family and medical leave policies are meeting the needs of employees without imposing undue burdens on employers. They also point to areas where these needs are unmet or where employers are reporting significant burdens.

The 2000 Survey of Employees interviewed 2,558 U.S. residents who had been employed at any time since January 1, 1999. Three types of individuals were included in the survey: (1) leave takers—that is, employees who took leave from work for a family or medical reason ($N = 1,229$); (2) leave needers—that is, employees who needed, but did not take, this type of leave ($N = 203$); and (3) other employees—that is, employees who did not take or need leave during the period covered by the survey ($N = 1,126$). The 2000 Survey of Establishments gathered information from a random sample of 1,839 private business establishments, some covered by the FMLA and some not. Like the original 1995 survey, the 2000 survey did not include government employers.

The sections that follow summarize the key findings of the 2000 surveys on the seven points highlighted in the previous section: (1) the provision of family and medical leave benefits; (2) the impact of the FMLA on covered establishments; (3) how the work of leave takers is covered; (4) the extent of coverage under the law; (5) the extent of awareness of the law; (6) employees' use of family and medical leave; and (7) employees' satisfaction with family and medical leave. Also summarized are the findings of the 2000 surveys on an eighth topic not included in the earlier surveys: the use of family and medical leave by parents of very young children.

Provision of family and medical leave benefits. As shown in table 1, the 2000 Survey of Establishments found that 83.7 percent of establishments covered by the law provided all five benefits it mandates (that is, 12 weeks of leave for employees' own serious health conditions, mothers' maternity-related reasons, parents' care for newborns, parents' care for adoptive or foster children, and employees' care for a child, spouse, or parent with a serious health condition). By contrast, only 33.5 percent of establishments not covered by the law offered all five benefits. Thus, covered establishments were much more likely to offer FMLA-type benefits than were noncovered establishments. However, the table also shows that the gap between covered and noncovered establishments is narrowing: establishments not covered by the law were significantly more likely to offer such benefits in 2000 than they were 5 years earlier.[6]

Table 1. Provision of family and medical leave benefits, by establishment coverage, 1995 and 2000

[In percent]

Provision	1995	2000
Provide all five mandated benefits:		
Establishments covered by the law	88.0	83.7
Establishments not covered by the law[1]	20.7	33.5
Offer more than 12 weeks of leave:		
Establishments covered by the law	—	22.9
Establishments not covered by the law	—	21.1
Cover employees who worked fewer than 12 months:		
Establishments covered by the law	—	28.7
Establishments not covered by the law	—	28.0
Cover employees who worked fewer than 1,250 hours:		
Establishments covered by the law	—	27.0
Establishments not covered by the law	—	26.8

[1] Difference between 1995 and 2000 is statistically significant at $p < .05$.

NOTE: Dash indicates data not available.

SOURCE: David Cantor, Jane Waldfogel, Jeff Kerwin, Mareena McKinley Wright, Kerry Levin, John Rauch, Tracey Hagerty, and Martha Stapleton Kudela, *Balancing the Needs of Families and Employers: Family and Medical Leave Surveys, 2000 Update* (Rockville, MD, Westat, 2001), figure 5.2 and table 5.4.

In addition, the 2000 survey data indicate that a sizable minority of both covered and noncovered establishments is offering leave beyond that mandated by the FMLA, by providing more than 12 weeks of leave, covering employees who did not work 12 months, or covering employees who did not work 1,250 hours in the previous year. (Questions about these topics were not asked in the 1995 survey.)

Impact on covered establishments. As shown in table 2, the share of covered establishments reporting that it was somewhat or very easy to comply with the administrative requirements of the FMLA declined from 85.1 percent in 1995 to 63.6 percent in 2000. That year, establishments reported more difficulty than they had had in 1995 with maintaining additional records, determining whether certain employees were eligible for benefits, coordinating State and Federal leave policies, coordinating the Act with other Federal laws, and coordinating the Act with other leave policies.[7]

At the same time, however, covered establishments generally reported that the FMLA had no noticeable effect on their business as regards productivity, profitability, and growth. When asked specifically about intermittent leave, a type of leave that might be particularly disruptive, a majority of covered establishments in the 2000 survey said that it had no impact on their productivity or profitability. (No such question was asked in the 1995 survey.)

How work is covered while employees are on leave. As in 1995, most leaves reported in the 2000 survey were short, and the most commonly reported method of covering work when an employee took leave was to assign the work temporarily to other employees. As shown in the following tabulation, the median length of leave in 2000 was 10 days, the same as in 1995, and again, about 90 percent of leaves were for 12 or fewer weeks:[8]

Length of leave and method of covering work	*1995*	*2000*
Median length of leave, days	10	10
Leaves lasting 12 or fewer weeks, percent	90.7	90.1
Establishments assigning work to other employees, percent	97.1	98.3
Establishments hiring temporary-replacement workers, percent*	60.5	41.3

*Difference between 1995 and 2000 is statistically significant at $p < .05$.

In both years, more than 97 percent of employers said that the most common method of covering the work of leave takers was to assign it temporarily to other employees. The second most commonly cited method in both years was hiring an outside temporary-replacement worker, but this method was used by significantly fewer establishments in 2000 (41.3 percent) than in 1995 (60.5 percent).[9]

Coverage. The shares of establishments and employees covered under the FMLA were about the same in 2000 as they were in 1995: 10.8 percent of establishments were covered in 2000, compared with the same figure in 1995, and 58.3 percent of employees worked in covered establishments in 2000, compared with 59.5 percent in 1995. Data from the 2000 Survey of Employ-

Table 2. Impact of FMLA on covered establishments, 1995 and 2000

[In percent]

Category	1995	2000
Very or somewhat easy to comply with[1]	85.1	63.6
No noticeable effect, or a positive effect, on:		
Business productivity	92.8	83.6
Business profitability[2]	93.7	90.2
Business growth	96.9	90.3
No impact of intermittent leave on:		
Productivity	–	81.2
Profitability	–	93.7

[1] Difference between 1995 and 2000 is statistically significant at $p < .05$.

[2] Difference between 1995 and 2000 is statistically significant at $p < .10$.

NOTE: Dash indicates data not available.

SOURCE: David Cantor, Jane Waldfogel, Jeff Kerwin, Mareena McKinley Wright, Kerry Levin, John Rauch, Tracey Hagerty, and Martha Stapleton Kudela, *Balancing the Needs of Families and Employers: Family and Medical Leave Surveys, 2000 Update* (Rockville, MD, Westat, 2001), tables 6.4, 6.5, and A2–6.13.

ees indicate that about a fifth (19.5 percent) of covered employees were not eligible under the law, because they did not meet the tenure or working-hours requirements,[10] about the same share as in 1995. This suggests that only about 46.9 percent of private-sector employees were both covered and eligible for FMLA leave, close to the same share as in 1995 (46.5 percent).[11] Thus, leave rights under the Act are still far from universal.

Awareness of the FMLA. Awareness of the law is, as expected, much higher in covered establishments than in noncovered establishments, of which more than half report not knowing whether they are covered. (See table 3.) A majority of employees in both covered and noncovered establishments have heard of the FMLA, but about half do not know whether the law applies to them. Employee awareness has increased since 1995 in both covered and noncovered establishments, as evidenced by the significant declines in the share of employees who do not know whether they are covered.

Employees' use of family and medical leave. One-sixth of all employees (16.5 percent) took leave for a family or medical reason in the 18 months prior to the 2000 survey, about the same percentage as did in the 1995 survey (16.0 percent). (See table 4.) Leave taking increased significantly between 1995 and 2000 for some demographic groups: older employees (aged 50 to 64), married employees, employees with children, and those with incomes of $50,000 to less than $75,000.

There was a significant shift between 1995 and 2000 in the reasons that individuals took leave, as shown in the following tabulation:[12]

	Percent distribution	
Reason for taking leave	*1995*	*2000*
Own health*	61.4	47.2
Maternity or disability*	4.6	7.8
Care for newborn, newly adopted child, or newly placed foster child	14.3	17.9
Care for ill child	8.5	9.8
Care for ill spouse*	3.6	5.9
Care for ill parent*	7.6	11.4

*Difference between 1995 and 2000 is statistically significant at $p < .05$.

In both years, the employee's own health was the most commonly mentioned reason for taking leave; however, employees who took leave in 2000 were less likely to do so for their own health than were employees in 1995 and more likely to take leave for other reasons, such as maternity or disability, care for an ill spouse, or care for an ill parent. The reasons for this shift are unclear. The increased use of leave for reasons other than one's own health may reflect a growing awareness and acceptance of the types of leave afforded under the FMLA and other family and medical leave policies, but there is no obvious explanation why leave taking for one's own health would have declined over the period, unless employees' total leave taking is constrained such that they must cut back on leave for their own health if they take leave for other reasons.

Table 3. Awareness of the FMLA, 1995 and 2000

[In percent]

Category	1995	2000
Employers who don't know whether they are covered:		
Establishments covered by the law	12.3	15.0
Establishments not covered by the law	56.5	55.0
Employees who have heard of the law:		
Establishments covered by the law	59.0	59.3
Establishments not covered by the law[1]	50.2	58.2
Employees who don't know whether they are covered:		
Establishments covered by the law[2]	59.6	49.0
Establishments not covered by the law[2]	68.2	51.2

[1] Difference between 1995 and 2000 is statistically significant at $p < .10$.
[2] Difference between 1995 and 2000 is statistically significant at $p < .05$.

SOURCE: David Cantor, Jane Waldfogel, Jeff Kerwin, Mareena McKinley Wright, Kerry Levin, John Rauch, Tracey Hagerty, and Martha Stapleton Kudela, *Balancing the Needs of Families and Employers: Family and Medical Leave Surveys, 2000 Update* (Rockville, MD, Westat, 2001), tables 3.4 and A2–3.10 and figures 3.1, 3.3, and 3.4.

Although overall leave taking did not increase from 1995 to 2000, taking leave covered by the FMLA did. This dichotomy is consistent with the shift in the reasons for taking leave noted in the previous paragraph. The employer and employee surveys provide different estimates of the magnitude of the use of the Act, but both point to an increase. The employee data show that the share of employees who took leave under the FMLA rose from 1.2 percent in 1995 to 1.9 percent in 2000.[13] The employer data show an increase in use from 3.6 percent of employees in 1995 to 6.5 percent in 2000.[14]

The share of employees needing leave, but not taking it, dropped significantly between 1995 and 2000. Only 2.4 percent of employees said that they needed leave, but could not take it, in 2000, significantly less than the 3.1 percent who reported needing, but not taking, leave in 1995.[15] In both years, the most common reason for not taking needed leave was the inability to afford it. In 2000, this reason was cited by 77.6 percent of those who needed, but did not take, leave.[16]

Employees' satisfaction with family and medical leave. A large majority of leave takers said that taking leave had positive effects on their ability to care for family members (78.7 percent), their own or family members' emotional well-being (70.1 percent), and their own or family members' physical health (63.0 percent); among those who cited positive effects on health, a large majority said that taking leave made it easier for them to comply with doctors' instructions (93.5 percent) and led to a quicker recovery period (83.7 percent).[17]

Table 4. Share of employees taking leave for family or medical reasons, 1995 and 2000

[In percent]

Category	1995	2000
All employees	16.0	16.5
Sex:		
Men	12.7	13.5
Women	20.0	19.8
Age:		
18–24	12.8	11.2
25–34	21.1	20.2
35–49	15.8	16.6
50–64[1]	12.9	17.0
65 or older	14.4	11.6
Marital status:		
Married or living with partner[1]	16.4	18.5
Previously married	19.6	20.0
Never married	11.7	9.2
Children under 18 in household:		
One or more children[1]	20.2	24.4
No children	12.8	11.3
Annual family income:		
Less than $20,000	16.9	16.5
$20,000 to less than $30,000	19.2	16.2
$30,000 to less than $50,000	16.0	18.3
$50,000 to less than $75,000[2]	15.7	19.9
$75,000 to less than $100,000	17.5	16.8
$100,000 or more	16.7	18.1

[1] Difference between 1995 and 2000 is statistically significant at $p < .05$.
[2] Difference between 1995 and 2000 is statistically significant at $p < .10$.

SOURCE: David Cantor, Jane Waldfogel, Jeff Kerwin, Mareena McKinley Wright, Kerry Levin, John Rauch, Tracey Hagerty, and Martha Stapleton Kudela, *Balancing the Needs of Families and Employers: Family and Medical Leave Surveys, 2000 Update* (Rockville, MD, Westat, 2001), table A2–2.7.

Most leave takers (72.6 percent) were somewhat or very satisfied with the amount of time they took during their longest leave. However, the share reporting that they were very satisfied was significantly lower in 2000 (42.2 percent) than in 1995 (48.2 percent).[18]

The most frequently cited concern of leave takers was financial, with more than half (53.8 percent) worried about not having enough money to pay bills.[19] Overall, about one-third of leave takers (34.2 percent) received no pay during their leave, about the same share as in 1995 (33.6 percent). The likelihood of receiving no pay varied a good deal by employee characteristics, as shown in table 5.

More than a third of women leave takers (37.5 percent) received no pay (compared with 29.6 percent of men). There were also significant differences by factors such as age and household income. At one extreme, more than two-thirds of leave takers who were young (aged 18 to 24) or who had an annual household income of less than $20,000 received no pay during their leave, while at the other extreme, less than one-quarter of leave takers who were older (aged 50–64) or who had an annual household income of $50,000 or more received no pay.

More than half (58.2 percent) of the leave takers who did not receive their full pay or who did not receive any pay while on leave reported that it was somewhat or very difficult to make ends meet, and about half (50.9 percent) said that they would have taken a longer leave if some or additional pay had been available.[20]

As noted earlier, a small share of employees said that they needed leave, but did not take it. The most commonly cited reason for this group's not taking leave was financial, with 77 percent saying that they did not take leave because they could not afford it, a significant increase from 1995, when about two-thirds of those needing, but not taking, leave (65.9 percent) said that the reason was financial.[21] In a follow-up question asked in the 2000 survey, 87.8 percent of this group said that they would have taken leave if some or additional pay had been available.[22]

Use of leave by employees with young children. The 2000 survey of employees contained a special set of questions designed to track the use of leave by employees with children born during the previous 18 months, the period covered by the retrospective portion of the survey. These questions provide a fascinating look at the use of leave by parents of young children in 2000, although, regrettably, comparable data for 1995 are not available.

As shown in the following tabulation, about three-quarters of employees with children aged 18 months or younger work at FMLA-covered work sites: [23]

	Percent	
Share and reason	*Men*	*Women*
Share covered	75.0	74.5
Share covered and eligible	66.7	56.3
Share taking leave for a covered reason	45.1	75.8
Reason for leave, across all leaves taken:		
Own health	9.1	15.3
Maternity-disability	.0	32.4
Newborn, newly adopted child, or newly placed foster child	34.1	35.8

Two-thirds (66.7 percent) of the men with young children and somewhat more than half (56.3 percent) of the women meet the eligibility requirements under the FMLA. Not surprisingly, a large share of employees with young children took some leave during the 18 months prior to the survey: 75.8 percent of women and 45.1 percent of men. Slightly more than a third of men with young children (34.1 percent) and women with young children (35.8 percent) took some leave to care for a newborn, a newly adopted child, or a newly placed foster child. In addition, about a third of women with young children (32.4 percent) took some leave for maternity or disability.

SEVEN YEARS AFTER THE FAMILY AND MEDICAL LEAVE ACT CAME INTO EFFECT, the year-2000 surveys of employers and employees indicate that family and medical leave is becoming a more important part of the experience of employers and employees. On the employer side, more establishments are offering family and medical leave policies, in many instances going beyond

what is required by the FMLA. Although an increasing share of establishments covered by the Act are reporting that it is difficult to administer, a solid majority of covered establishments—two-thirds— is finding the Act easy to administer, and an even larger majority of establishments reports that the FMLA has had no adverse effects on their business. These mixed reports from establishments suggest the need for further research on employers' experiences with family and medical leave policies. In this regard, it would be particularly useful to study employers' experiences with the Act and with family and medical leave policies in the context of their experiences with other mandated benefits and other types of leave and personnel policies. That way, researchers can better understand the extent to which their reported difficulties with the FMLA are comparable to those experienced with other types of personnel policies and mandates. Future research should also further explore the experience of noncovered establishments that offer FMLA-like coverage, in order to better understand the factors motivating these establishments to adopt such policies and also to better understand their experiences with them.

Table 5. Share of employees who received no pay during their longest leave, 1995 and 2000

[in percent]

Category	1995	2000
All employees	33.6	34.2
Sex:[1]		
Men	–	29.6
Women	–	37.5
Age:[1]		
18–24	–	69.7
25–34	–	35.0
35–49	–	31.5
50–64	–	19.7
65 or older	–	44.2
Marital status:[1]		
Married or living with partner	–	30.9
Previously married	–	26.5
Never married	–	62.6
Children under 18 in household:		
One or more children	–	33.8
No children	–	34.4
Annual family income:[1]		
Less than $20,000	–	73.8
$20,000 to less than $30,000	–	37.6
$30,000 to less than $50,000	–	32.3
$50,000 to less than $75,000	–	23.8
$75,000 to less than $100,000	–	18.8
$100,000 or more	–	20.6

[1] Differences within groups in this subcategory for 2000 are statistically significant at $p < .05$.

NOTE: Dash indicates data not available.

SOURCE: David Cantor, Jane Waldfogel, Jeff Kerwin, Mareena McKinley Wright, Kerry Levin, John Rauch, Tracey Hagerty, and Martha Stapleton Kudela, *Balancing the Needs of Families and Employers: Family and Medical Leave Surveys, 2000 Update* (Rockville, MD, Westat, 2001), tables 4.4 and A2–4.1.

On the employee side, employees are using FMLA leave in increasing numbers, and the use of leave for family and medical reasons is rising for groups of employees who may be particularly likely to have family or medical needs (for example, employees with children, who may be more likely to have young children who need care, and older employees, who may be more likely to have seriously ill spouses or parents). In contrast, the proportion of those who say that they needed leave for a family or medical reason, but were not able to take it, is declining. Employees who have used leave generally report that they are satisfied with the leave they took and that it had a positive effect on their own and their families' health and well-being. The major problem that emerges from the data on employees is financial: more than half of leave takers worry about not having enough money for bills. Many leave takers report having difficulty making ends meet during their leave, and some cut their leave short due to financial constraints. In addition, a substantial share of those who need, but do not take, leave say that they did not take the leave they needed because they could not afford it. The new data also suggest that there may be constraints on the total length of leave that employees can take, such that employees may be cutting back leave for their own health if they are taking leave for other family- or medical-related reasons. These issues should be explored in future research. Specialized studies of groups with high family and medical leave needs (such as employees with young children or with elderly relatives) would be particularly welcome.

A number of changes to the FMLA have been proposed since the law was implemented, although none have been enacted to date. The results of the new surveys point to two problem areas that are particularly pressing. The first is the need to make some provision for paid leave. This is an area that has received a great deal of attention in recent years, and one avenue that is currently being pursued is allowing parents to use unemployment benefits when they take leave to care for a newborn or a newly adopted child. The Department of Labor issued a rule in June 2000 permitting States to experiment with providing unemployment compensation in such situations, and several States are now considering legislation along these lines. It may be worthwhile examining other options for paid leave as well (for example, a temporary disability insurance program, similar to those currently in place in several States; a separate paid parental leave program, similar to those used by many other industrialized countries; or an "early childhood benefits" program which would provide cash that new parents could use to subsidize leave or child care, similar to programs recently introduced in a few Nordic countries).[24] Prospects for such legislation are uncertain at the national level, so efforts are likely to focus at the State level in the immediate future.

A second pressing problem area, which also has received a great deal of attention recently, is extending leave to employees

who are not currently covered or eligible—for instance, those working at establishments covered by the law, but not meeting the requirements for eligibility, or those working at smaller establishments not covered by the law. Legislation that would amend the FMLA to extend coverage to employees in businesses with 25 to 50 employees (as well as to fund the replacement of wages for some employees who take leave after the birth of a child) has been proposed in Congress, but the prospects for congressional action are uncertain. Thus, progress on this issue, too, may depend on action at the State level. □

Notes

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[1] Further details on the 1995 surveys and their findings can be found in Commission on Family and Medical Leave, *A Workable Balance: Report to Congress on Family Medical Leave Policies* (U.S. Department of Labor, Women's Bureau, 1996); executive summary available on the Internet at **www.dol.gov/dol/esa/public/regs/compliance/whd/fmla/summary.htm**. Further details on the 2000 surveys and their findings can be found in David Cantor, Jane Waldfogel, Jeff Kerwin, Mareena McKinley Wright, Kerry Levin, John Rauch, Tracey Hagerty, and Martha Stapleton Kudela, *Balancing the Needs of Families and Employers: Family and Medical Leave Surveys, 2000 Update* (Rockville, MD, Westat, 2001); on the Internet at **http://www.dol.gov/asp/fmla/main.htm**. The 2000 surveys are also on the Internet at **www.dol.gov/asp/fmla/database.htm**.

[2] See Sheila Kamerman, "Parental Leave Policies: An Essential Ingredient in Early Childhood Education and Care Policies," *Social Policy Report*, vol. 14, no. 2, 2000, pp. 3–15; and "From Maternity to Parenting Policies: Women's Health, Employment, and Child and Family Well-Being," *Journal of the American Women's Medical Association*, in press; see also Peter Moss and Fred Deven (eds.), *Parental Leave: Progress or Pitfall? Research and Policy Issues in Europe* (Brussels, CBGS Publications, 1999); and Elizabeth Olson, "U.N. Surveys Paid Leave for Mothers: U.S. among Nations without a Policy," *The New York Times*, Feb. 16, 1998, p. A.5.

[3] Jane Waldfogel, "Family leave coverage in the 1990s," *Monthly Labor Review*, October 1999, pp. 13–21; and "The Impact of the Family and Medical Leave Act," *Journal of Policy Analysis and Management*, vol. 18, no. 2, 1999, pp. 281–302.

[4] Katherin Ross, "Labor Pains: The Effects of the Family and Medical Leave Act on Recent Mothers' Returns to Work after Childbirth," paper presented at the annual meeting of the Population Association of America, Chicago, Apr. 2–4, 1998; Waldfogel, "Family and Medical Leave Act"; and Jane Waldfogel, Wenjui Han, and Katherin Ross Phillips, "Parental Leave-Taking and the FMLA," revised version of paper presented at the annual meeting of the Population Association of America, Los Angeles, Mar. 24, 2000. See also related research summarized in Christopher Ruhm, "Policy Watch: The Family and Medical Leave Act," *Journal of Economic Perspectives*, vol. 11, no. 3, 1997, pp. 175–86.

[5] See Martin Malin, "Fathers and Parental Leave," *Texas Law Review*, vol. 72, no. 5, 1994, pp. 1047–95; and "Fathers and Parental Leave Revisited," *Northern Illinois University Law Review*, vol. 19, no. 1, 1998, pp. 25–56; and Waldfogel, Han, and Ross Phillips, "Parental Leave-Taking."

[6] The reasons for this increase are not clear. Noncovered establishments may be increasing their provision of these benefits either as a way of keeping up with the benefits offered by covered establishments in a tight labor market or as a way of responding to the increased attention that family and medical leave issues have received in recent years.

[7] Cantor et al., *Balancing the Needs of Families and Employers*, table 6.4.

[8] *Ibid.*, tables 6.3 and A2–2.2.

[9] The data from the Survey of Employees tell a similar story: the most common method for covering work, according to employees who had taken leave, was to assign it to other workers, and the share of leave takers who said their work was covered by a temporary replacement was significantly lower in 2000 than in 1995.

[10] Cantor et al., *Balancing the Needs of Families and Employers*, table A2–3.1.

[11] The 46.9-percent figure was calculated by multiplying the share of employees identified as covered in the 2000 Survey of Establishments (58.3 percent) by the share of covered employees identified as eligible in the survey (80.5 percent). All the figures in this paragraph are from Commission on Family and Medical Leave, *A Workable Balance*, Executive Summary; and Cantor et al., *Balancing the Needs of Families and Employers*, tables 3.1 and A.2–3.2.

[12] Cantor et al., *Balancing the Needs of Families and Employers*, table 2.5.

[13] $p < .05$. See Cantor et al., *Balancing the Needs of Families and Employers*, table 3.5.

[14] *Ibid.*, table 3.6.

[15] $p < .05$. See Cantor et al., *Balancing the Needs of Families and Employers*, table 2.14.

[16] *Ibid.*, table 2.17.

[17] *Ibid.*, tables 4.10 and 4.11; comparable data for 1995 are not available.

[18] *Ibid.*, figure 4.3.

[19] *Ibid.*, table 4.1; comparable data for 1995 are not available.

[20] *Ibid.*, figure 4.2 and table 4.9; comparable data for 1995 are not available.

[21] *Ibid.*, table 2.17.

[22] *Ibid.*, table 2.18.

[23] *Ibid.*, tables 4.16, 4.17, and 4.19.

[24] Jane Waldfogel, "What Other Nations Do: International Policies toward Parental Leave and Child Care," paper prepared for a special issue of *The Future of Children* on "Caring for Infants and Toddlers," spring–summer 2001, pp. 99–111.

Job creation and destruction within Washington and Baltimore

Microdata from the new BLS Longitudinal Database show that from March 1992 through March 1999, gross job flows varied significantly between central cities and suburbs in the Washington-Baltimore metropolitan area; higher suburban employment growth was related to higher rates of both job creation and job destruction

R. Jason Faberman

It is well known that there exists a large disparity in the growth rates of central cities and suburbs. In a host of metropolitan areas, central city employment has declined, while suburban employment has flourished. Understanding the nature and causes of these growth patterns are critical to those seeking to stimulate the economy of a central city or deal with suburban expansion. One previously unexplored aspect of metropolitan growth patterns is their *gross job flow components*—employment changes due to establishment startups, shutdowns, expansions, and contractions. At its core, employment growth is simply the *net* result of these four components. An examination of those components reveals much more about the employment patterns within a metropolitan area than does an analysis of employment growth alone. Consequently, this article analyzes just how much gross job flows relate to the observed differences in growth between central cities and suburbs.

Gross job flows have recently become the primary focus of several economic studies. Previously, economists relied almost entirely on aggregated data for their research purposes, particularly in studies involving employers and labor demand. This practice, however, allowed researchers to observe only the net changes in economic variables from period to period. A few economists, notably Timothy Dunne, Mark J. Roberts, and Larry Samuelson,[1] as well as Steven Davis and John C. Haltiwanger,[2] appealed to establishment-level microdata for their analyses of the U.S. macroeconomy and aggregate labor dynamics. By using those data, they were able to analyze both employment growth and gross job flows for the economy. Together, these variables gave a much clearer picture of how the labor market functioned, and they changed how many economists perceived the way the economy worked.

Job flows deal with changes in employment at the *place of work*. These changes are associated with the startup and closing of an establishment, as well as the expansion or contraction of a continuing establishment's workforce. As the evidence that follows shows, job flows are quite pervasive. They can account for changes totaling more than 15 percent of employment in a given quarter. Such high rates of job turnover are reported in several other empirical studies also.[3]

Research on job flows requires access to establishment microdata. The Bureau of Labor Statistics is currently in the process of producing a new set of this type of data. The Longitudinal Database (LDB) contains quarterly employment and wage data for nearly all establishments in the U.S. economy. The Unemployment Insurance (UI) records from the

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BLS ES-202 program provide the raw data for the LDB. These records are matched across time in order to create a continuous longitudinal time series for each establishment, thereby allowing a researcher to observe when establishments start up, shut down, expand their employment, or contract their operations. Unlike previous databases, the LDB has quarterly information on all private and public establishments. Extending past the manufacturing industry, the LDB covers approximately 98 percent of all employed individuals. Consequently, it provides a unique source of data for a variety of micro- and macroeconomic studies.[4] The coverage of industries and establishments in the LDB makes it particularly useful for in-depth regional studies such as the one presented in this article.

Previous research on job flows dealt primarily with national-level data and usually focused on manufacturing. Research across all industries at a finer level of regional detail has the potential to highlight many interesting findings about the labor market. For instance, Randall W. Eberts and Edward Montgomery have one of the few studies that explore State-level job flows using establishment microdata.[5] These researchers find a positive relation between job flows and employment growth across areas: growing areas tend to have higher rates of both job creation and job destruction. Findings such as this for metropolitan areas or smaller regions could greatly aid in our understanding of how local labor markets function.

The analysis that follows focuses on the Washington and Baltimore metropolitan areas and looks at quarterly job flows from March 1992 to March 1999. These two metropolitan areas are particularly interesting because they have several unique properties. Washington and Baltimore are rather large metropolitan areas, and although they are located in close proximity to each other, they have quite different industrial and sectoral compositions and have experienced different paths of economic growth. Washington is predominantly a service-based city. Nationally and locally, the service industry has grown considerably over the past decade. As the national capital, Washington also has a disproportionate share of public-sector employees. Baltimore, by contrast, is predominantly a manufacturing-based city and is similar to many of the metropolitan areas in the "Rust Belt," which dominate the Northeastern, Midwestern, and Mid-Atlantic regions of the United States. Like many of its northern counterparts, Baltimore has had to adjust to significant structural change, as its more mature industries have faced employment contractions. Finally, both metropolitan areas have well-defined political boundaries for their central cities (the District of Columbia and Baltimore City, respectively), making them particularly useful for this study.

The results of the study indicate substantial job flow heterogeneity within both metropolitan areas. Higher growth occurred in the suburbs rather than the central cities. The two central cities lost substantial employment during the period studied. The majority of losses in the District were in government, while the losses in Baltimore City were mostly in private employment. Suburban growth was associated with high rates of both job creation *and job destruction*. An examination of job flows by their component parts (that is, startups, shutdowns, expansions, and contractions) reveals that higher rates persisted in the suburbs in nearly every instance; the only exception was a relatively high rate of shutdowns in the District of Columbia. These findings shed an intriguing new light on the employment dynamics observed within metropolitan areas: not only is job growth higher in the suburbs, but job turnover is as well.

The next section outlines the data, methodology, and terminology used in the analysis. The section after that presents results. The final section draws conclusions, cites possible explanations of the findings, and mentions some potential avenues of future research.

Data and methodology

The study to be presented uses the BLS Longitudinal Database to analyze gross job flows for the Washington, DC-Maryland-Virginia-West Virginia, Primary Metropolitan Statistical Area (PMSA) and the Baltimore, Maryland, PMSA. The District of Columbia and Baltimore City are the central cities of their respective PMSA's. All other counties and independent cities in each PMSA are collectively referred to as suburbs. The study examines 28 quarters, spanning March 1992 to March 1999.[6] An establishment at a single location is the unit of observation. For the Washington PMSA, the number of quarterly observations ranges from 107,000 at the beginning of the sample period to 129,000 at the end. The number of Baltimore PMSA observations ranges from 50,000 to 57,000. The analysis focuses on employment data for the 3rd month of each quarter. The LDB contains linked establishments from the BLS ES-202 program, creating a historical record for each observation. In a recent *Monthly Labor Review* article, Timothy R. Pivetz, Michael A. Searson, and James R. Spletzer provided a detailed examination of the LDB, including its longitudinal establishment linking procedure.[7]

The study that follows focuses on employment as it changes each quarter. An establishment *birth* has positive employment in the current quarter and zero employment[8] in the previous quarter and satisfies the following conditions: it cannot be a reactivated establishment coming off a temporary shutdown, and it cannot be a newly created breakout of a multiple-establishment record in the data. Similarly, an establishment *death* has zero employment in the current quarter and positive employment in the previous quarter and satisfies the following conditions: it cannot be shut down temporarily or be an active employer reporting zero employment, and it cannot be the result of a consolidation of a multiple-establishment record. *Birth employment* is the number of jobs gained due to the startup of a new establishment. *Death employment* is the number of jobs lost due to the shutdown of an establishment.

Expansion employment is the number of jobs gained due to continuing establishments experiencing a net gain in employment. *Contraction employment* is the number of jobs lost due to continuing establishments experiencing a net loss in employment. Note that expansions and contractions do not capture job changes within an establishment; instead, these statistics reflect only a net change in establishment employment between quarters.[9] *Job creation* is the sum of birth employment and expansion employment. *Job destruction* is the sum of death employment and contraction employment. Finally, the *net change* in employment is the difference between job creation and job destruction.

The study uses the average employment over the current and starting periods, rather than the starting-period employment, as the denominator to calculate the growth rate.[10] Job flow rates are calculated using the same denominator. These rates add up in the same manner as the employment numbers. (For example, the job creation rate is the sum of the birth rate and the expansion rate.) Consequently, the growth rate is just the difference between the job creation and job destruction rates.

Gross job flows in Washington and Baltimore

Background information. Like many metropolitan areas in the South and West of the United States, Washington has seen significant population growth, in both absolute and percentage terms. The Bureau of the Census estimated the metropolitan area's 1999 population to be approximately 4.7 million, a gain of more than 517,000, or 12.2 percent, over the 1990 figure. Baltimore's 1999 metropolitan area population was just under 2.5 million. In contrast to Washington's growth, Baltimore's population increased by just 109,000, or 4.6 percent, between 1990 and 1999. Baltimore has a significant manufacturing base that underwent considerable structural change over the past several decades, similar to that of many "Rust Belt" cities. The Census of Manufactures indicates that the manufacturing industry in Baltimore shed nearly 30 percent of its workforce between 1977 and 1992. The LDB data indicate a contraction of an additional 13 percent during the study period. In contrast, Washington has a relatively high share of employment in high-technology industries. The LDB data suggest that nearly 20 percent of the area's private-sector employees work in industries such as communications, software, and electronics. (This level of detail is not reported herein.) The high skills required of workers in these industries are reflected in the region's wages: on the basis of the 1999 ES-202 employment and wage data, the Washington PMSA ranks sixth out of more than 300 MSA's in average wage per worker. Baltimore, while above average, ranks 39th in this category.

Job flows by central cities and suburbs. Table 1 breaks down the basic employment and growth statistics for each PMSA by

Table 1. Employment growth in Washington and Baltimore, by area and sector, March 1992–March 1999

Area and sector	Employment, March 1999	Employment, March 1992	Net change	Employment share[1]	Quarterly growth rate
Washington PMSA	2,503,416	2,216,611	286,805	...	0.44
District of Columbia:					
Total	592,787	655,084	–62,297	100.0	–.34
Private	371,833	371,053	780	59.7	.01
Public[2]	220,954	284,031	–63,077	40.3	–.84
Suburbs:					
Total	1,910,629	1,561,527	349,102	100.0	.72
Private	1,552,917	1,221,923	330,994	79.8	.86
Public[2]	357,712	339,604	18,108	20.2	.19
Baltimore PMSA	1,142,326	1,031,994	110,332	...	.36
Baltimore City:					
Total	376,748	400,528	–23,780	100.0	–.22
Private	291,682	315,545	–23,863	78.1	–.29
Public[2]	85,066	84,983	83	21.9	.00
Suburbs:					
Total	765,578	631,466	134,112	100.0	.69
Private	636,501	517,752	118,749	82.6	.74
Public[2]	129,077	113,714	15,363	17.4	.45

[1] The employment share is an average of the employment shares from the first quarter of 1992 and the first quarter of 1999.

[2] Public-sector employment contains all Federal, State, and local government employees.

NOTE: The growth rate is the quarterly average of the period from the first quarter of 1992 to the first quarter of 1999, multiplied by 100 to yield a percentage.

Table 2. Job flow rates in center cities and suburbs, Washington and Baltimore, by area and sector, March 1992–March 1999

Area and sector	Job creation			Job destruction			Net employment growth
	Total	Births	Expansions	Total	Deaths	Contractions	
Washington PMSA							
District of Columbia:							
Total	4.9	1.1	3.9	5.3	1.2	4.1	–0.3
Private	7.2	1.6	5.5	7.2	1.8	5.4	.0
Public[1]	1.6	.2	1.4	2.5	.2	2.2	–.8
Suburbs							
Total	7.1	1.5	5.6	6.4	1.2	5.2	.7
Private	8.3	1.9	6.4	7.4	1.5	5.9	.9
Public[1]	2.6	.2	2.4	2.4	.1	2.3	.2
Baltimore PMSA							
Baltimore City:							
Total	5.1	1.0	4.1	5.3	1.1	4.2	–.2
Private	6.0	1.3	4.7	6.3	1.4	4.9	–.3
Public[1]	2.1	.2	1.9	2.1	.2	1.9	.0
Suburbs							
Total	7.2	1.7	5.5	6.5	1.3	5.2	.7
Private	8.0	2.0	6.0	7.3	1.5	5.8	.7
Public[1]	3.0	.3	2.7	2.5	.2	2.3	.5

[1] Public-sector employment contains all Federal, State, and local government employees.

NOTE: The job flow rate is the quarterly average of the period from the first quarter of 1992 to the first quarter of 1999, multiplied by 100 to yield a percentage.

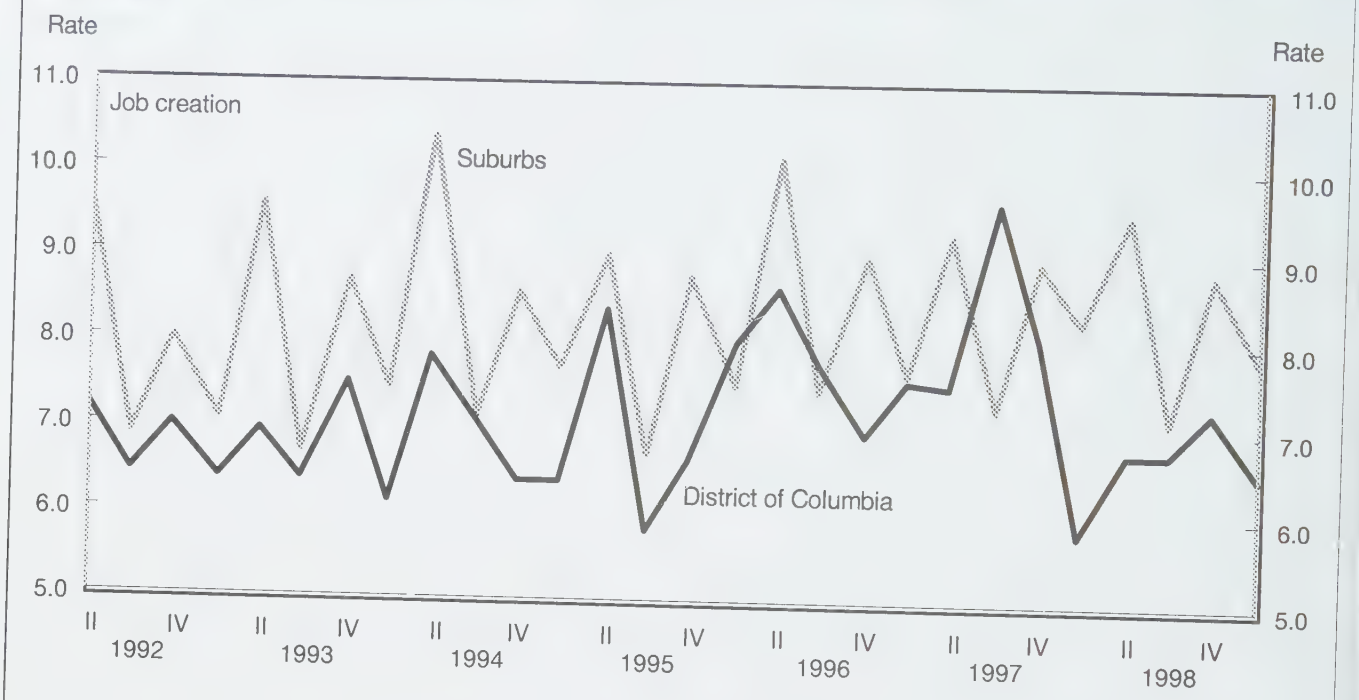
area (central city or suburb) and sector (private or public). Washington has more than twice the employment base of Baltimore. Government work makes up a disproportionately large share of Washington employment, particularly in the District of Columbia itself. Nonetheless, the area saw its public-employment share decline over the sample period. Overall, the two PMSA's have similar rates of total employment growth. Washington experienced a higher rate of private-employment growth, but also registered large job losses in the public sector during the study period, again mostly in the District. In both Washington and Baltimore, the central cities experienced striking employment losses. The net losses in the District were almost exclusively in the public sector, while the losses in Baltimore City were concentrated in the private sector. Both cities' suburbs had considerable employment growth over the period, whether it is measured as private or total employment.

Table 2 provides the average quarterly job flow rates for the central city and suburbs in each PMSA. For each area, job flows are listed for the private and public sector and for the entire labor force. In both central cities, job losses coincided with low rates of both job creation and job destruction. This was particularly true for total employment. The suburbs of both metropolitan areas had high growth and relatively high job creation and destruction. In Washington, the rates of private-sector job creation and destruction were approximately 15 percent and 3 percent higher, respectively, in the suburbs than in the central city. In Baltimore, the respective differences were a striking 33 percent and 16 percent in favor of the suburbs. The differences in job flows between the central cities and suburbs remain even when one splits out job creation and destruction by births, deaths, expansions, and contractions. The only exception occurs in the Washington private sector, where the death rate is higher in the District of Columbia than in the suburbs.

Charts 1 and 2 show that these differences generally persist over the study period, despite large seasonal fluctuations in job creation and job destruction each quarter. The top panel of chart 1 shows that the job creation rate in the District of Columbia surpassed that of the Washington area suburbs only three times over the 28-quarter span. In the bottom panel, the District's job destruction rate exceeded the suburban rate just eight times. Chart 2 shows higher rates of suburban job creation and destruction over the entire period for the Baltimore PMSA. The lone exception was during the second quarter of 1994, seen in the bottom panel, where the Baltimore suburban job destruction was just slightly less than that in Baltimore City. Finally, there is a pronounced asymmetry in just how and when job flows are higher in the suburbs. In each case, central city and suburban job flows are not all that different during seasonal declines in a given job flow. However, the seasonal spikes in both job creation and job destruction are much more prominent in the suburbs than in the central cities.

THERE EXIST CONSIDERABLE DIFFERENCES not only in the patterns of growth between the central cities and suburbs of Washington and Baltimore, but also in their rates of job creation and job

Chart 1. Washington PMSA job creation and job destruction, private sector, second quarter 1992 to fourth quarter 1999



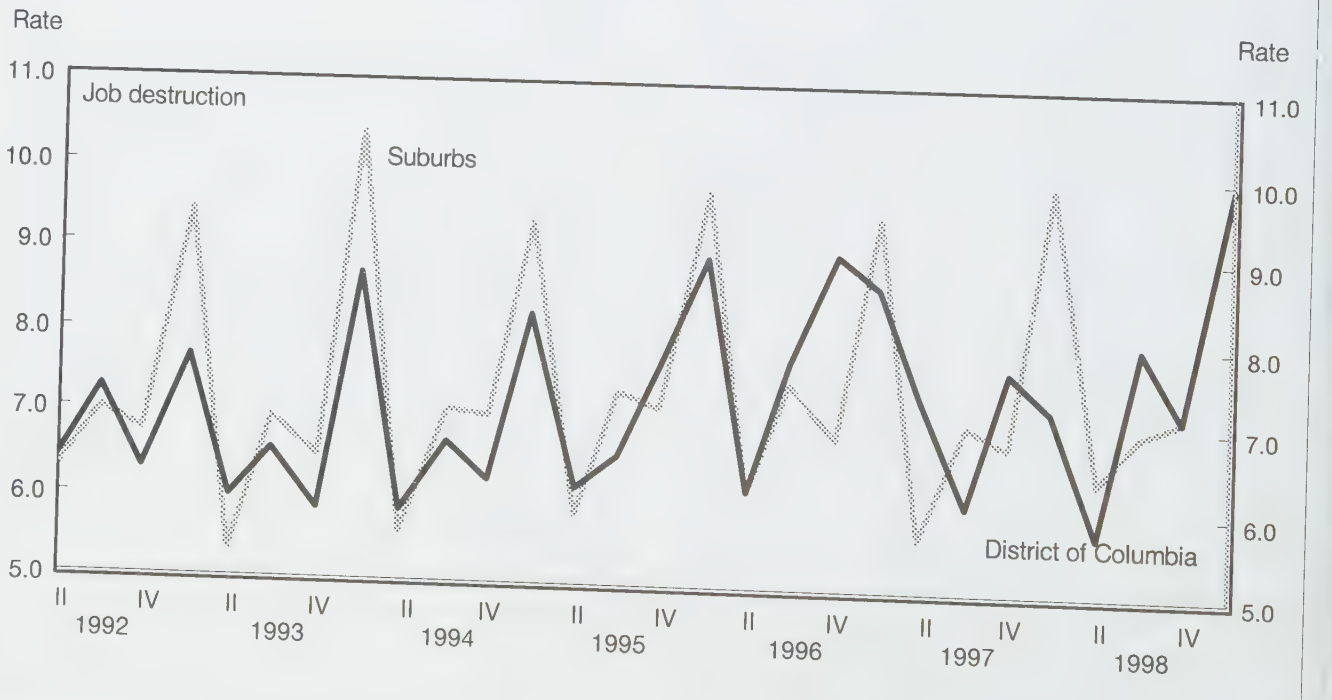
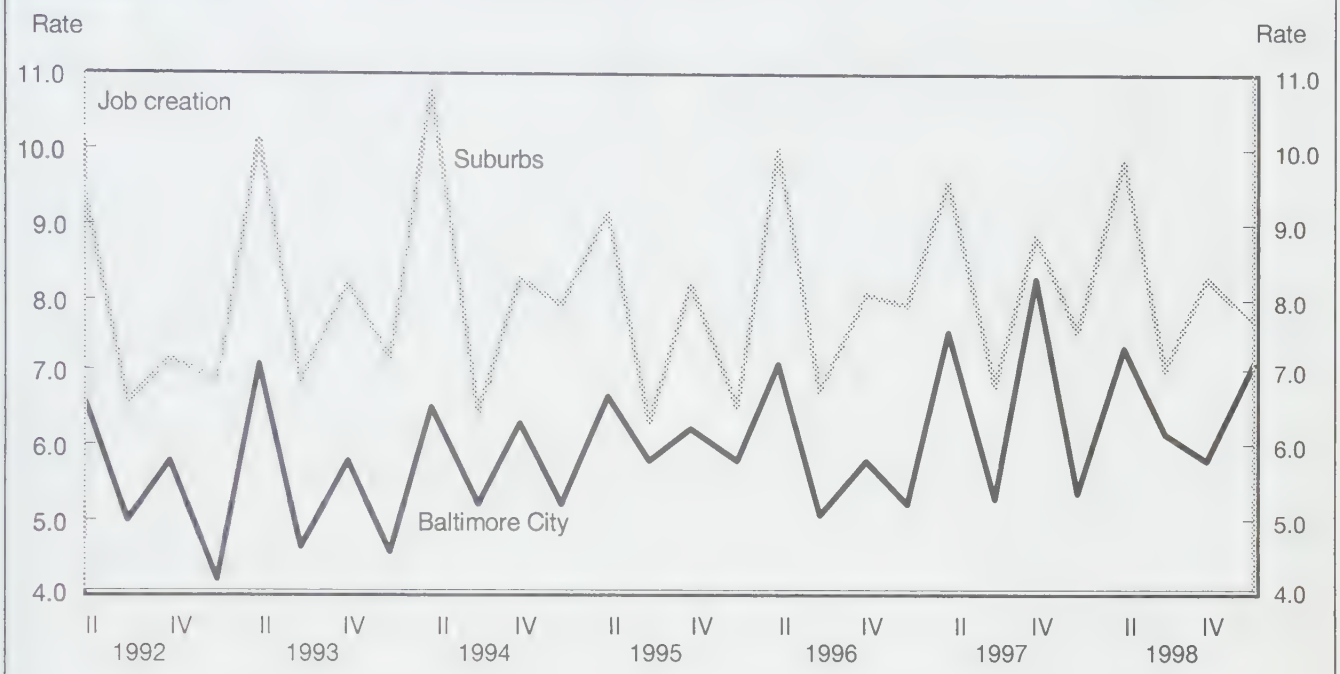
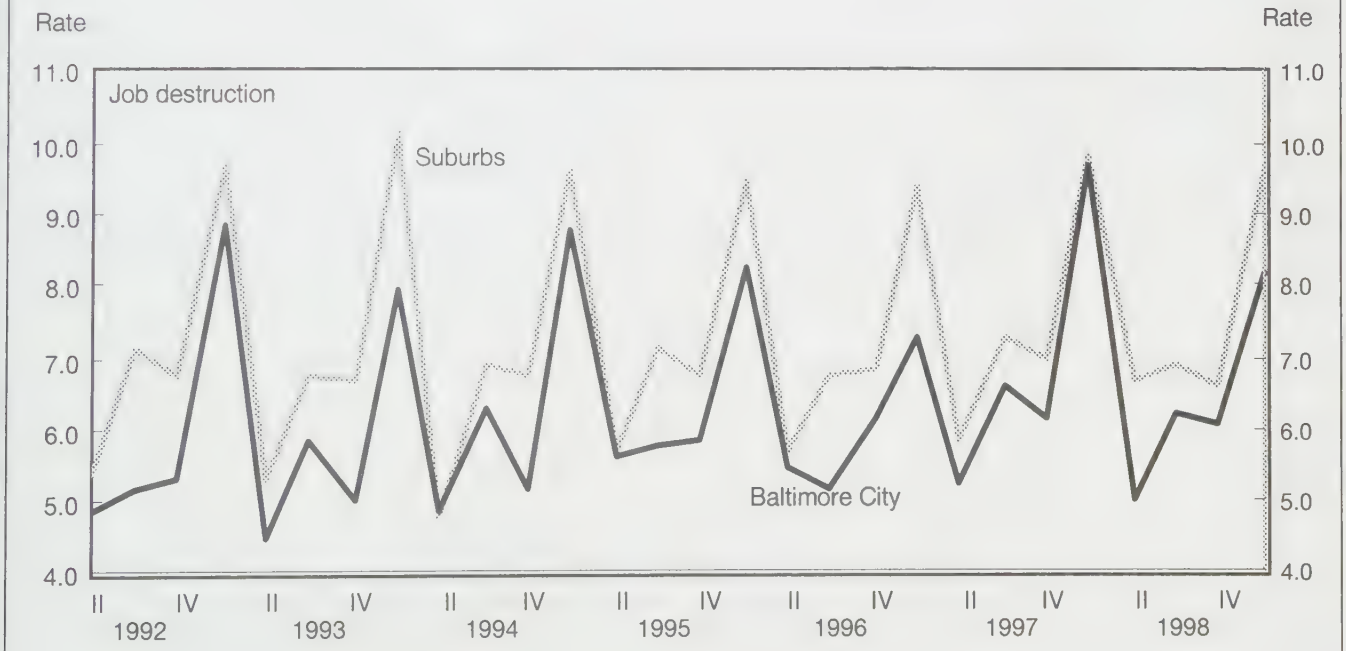


Chart 2. Baltimore PMSA job creation and job destruction, private sector, second quarter 1992 to fourth quarter 1999





destruction. Further, higher growth in the suburbs is associated, as one might expect, with high rates of job creation, but also, as one might *not* expect, with high rates of job destruction. To a large degree, the higher job flow rates persist over time, with seasonal fluctuations causing an asymmetry in the central-city–suburb difference: suburban job flows are much higher during seasonal increases than during seasonal decreases.

The fact that rates of both job creation and destruction are higher in the suburbs is a striking finding. It is not surprising that higher rates of job creation exist in the suburbs, because net growth is higher there as well. What is surprising is that rates of *job destruction* are higher in the suburbs, too. One explanation is that the central cities and suburbs differ in their establishment characteristics (for example, industry classification, establishment size, and age). Evidence presented in previous work indicates that these characteristics should play a role.[11] If so, then job flow rates in the suburbs would be higher in the aggregate, but would not be much different than central-city rates, for a given characteristic (for instance, comparing rates within the manufacturing industry or among medium-sized establishments).

One could think of other, more economic, factors that might influence the differences in job creation and destruction found in this study. There are several possibilities. Some deal with stories of "creative destruction." For instance, suburban locations may be appealing to newer firms. When locating in the suburbs, new firms outcompete the older firms with new technologies and innovations. The inflow of new firms causes a higher rate of job creation, and the added competition it introduces to the older firms generates a higher rate of job destruction. In the end, the suburbs end up with more productive firms, a situation that comes about through higher rates of job turnover. This *replacement pattern* of creative destruction is consistent with several macroeconomic models in which older capital is slowly replaced by newer "vintages" over time.[12] In the central cities, the process of creative destruction is absent: there is no added competition for older firms to contend with, implying that competition has no effect on job destruction rates, and no new firms are entering the area, keeping job creation rates low.

Another way creative destruction could account for high suburban job flows is through a *shakeout* mechanism, as in the model of Ricardo Caballero and Mohamad Hammour.[13] In this setting, new firms compete against each other, with some flourishing and others dying out quickly. Here, it is the entrance of new firms that accounts for the high rates of both job creation and job destruction.

Finally, labor migration may also explain how these differences in job creation and job destruction come about. An influx of workers may increase the rates of job searching and matching, as migrants try to match up with a job they find acceptable. This added shuffling around also would lead to simultaneously higher rates of job creation and job destruction, a scenario that is most consistent with the model of regional labor dynamics presented by Oliver J. Blanchard and Lawrence Katz.[14] However, this scenario may better explain job flow differences *across* metropolitan areas rather than within them, as migration is usually thought of as occurring across different labor markets.

This article documents significant regional variation in the rates of job creation and job destruction. These gross job flows provide a more detailed picture of how local labor markets function than do simple net employment growth rates, and databases such as the LDB are ideal for the purpose. The study, however, tackles only a small part of the regional aspect of gross job flows, leaving the door open for a host of future work on the subject. For example, further research could go far in discerning whether any of the preceding scenarios represents a plausible explanation for the higher rates of job flows in the suburbs. Research involving a broader range of metropolitan areas would prove fruitful in this regard, as well as in either corroborating or refuting the existence of the job flow difference between the center cities and suburbs—it may be, after all, that the findings reported here are unique to the Baltimore-Washington area. Because employment growth rates are known to vary widely across the Nation, research on other regions could also aid in documenting and explaining variations in job flows across metropolitan areas as well as within them. The results of future work in this area could have considerable policy implications at both the local and national levels. □

Notes

[1] Timothy Dunne, Mark J. Roberts, and Larry Samuelson, "Patterns of Firm Entry and Exit in U.S. Manufacturing Industries," *RAND Journal of Economics*, winter 1988, pp. 495–515; "Plant Turnover and Gross Employment Flows in the U.S. Manufacturing Sector," *Journal of Labor Economics*, January 1989, pp. 48–71; and "The Growth and Failure of U.S. Manufacturing Plants," *Quarterly Journal of Economics*, November 1989, pp. 671–98.

[2] Steven Davis and John C. Haltiwanger, "Gross Job Creation and Destruction: Microeconomic Evidence and Macroeconomic Implications," in *NBER Macroeconomics Annual 5* (Cambridge, MA, National Bureau of Economic Research, 1990), pp. 123–68); and "Gross Job Creation, Gross Job Destruction and Employment Reallocation," *Quarterly Journal of Economics*, August 1992, pp. 819–63.

[3] For a review, see Steven Davis and John C. Haltiwanger, "Gross Job Flows," in Orley Ashenfelter and David Card (eds.), *Handbook of Labor Economics, Volume 3* (Amsterdam, Elsevier Science, 1999),

pp. 2711–2805.

[4] See Daniel S. Hamermesh, "LEEping into the Future of Labor Economics: The Research Potential of Linking Employer and Employee data," *Labour Economics*, March 1999, pp. 25–41. Hamermesh presents an in-depth list of the avenues of potential research for matched employee-employer data. The list includes many research possibilities for establishment microdata, such as the LDB, as well.

[5] Randall W. Eberts and Edward Montgomery, "Cyclical versus Secular Movements in Employment Creation and Destruction," NBER Working Paper No. 5162, 1995.

[6] Effective June 30, 1993, the Baltimore and Washington Metropolitan Statistical Areas were combined. This article looks at the two areas separately; for more information on definitions of metropolitan areas, see OMB Bulletin 99–04.

[7] Timothy R. Pivetz, Michael A. Searson, and James R. Spletzer, "Measuring job and establishment flows with BLS longitudinal microdata," *Monthly Labor Review*, April 2001, pp. 13–20.

[8] An establishment that is missing from the data is construed to have zero employment.

[9] Davis, Haltiwanger, and Scott Schuh, *Job Creation and Destruction* (Cambridge, MA, MIT Press, 1996), note this occurrence as well in their calculations of job creation and destruction. They conclude that the resulting job creation and destruction measures yield a lower bound estimate due to the movement of jobs within establishments in a given quarter.

[10] The methodology for growth rate and job flow rate calculations is identical to that outlined in Davis, Haltiwanger, and Schuh, *Job Creation and Destruction*.

[11] See Davis and Haltiwanger, "Gross Job Flows."

[12] Some examples are V. V. Chari and Hugo Hopenhayn, "Vintage Human Capital, Growth, and the Diffusion of New Technology," *Journal of Political Economy*, December 1991, pp. 1142–65; Philippe Aghion and Peter Howitt, "A Model of Growth through Creative Destruction," *Econometrica*, March 1992, pp. 323–52; and Simon Gilchrist and John C. Williams, "Putty-Clay Investment: A Business-Cycle Analysis," NBER Working Paper No. 6812, 1995.

[13] Ricardo Caballero and Mohamad Hammour, "The Cleansing Effect of Recessions," *Quarterly Journal of Economics*, December 1994, pp. 1350–68.

[14] Oliver J. Blanchard and Lawrence Katz, "Regional Evolutions," *Brookings Papers on Economic Activity, Vol. 1* (Washington, DC, Brookings Institution, 1992), pp. 1–75.

Let's shake on it

Will the Internet truly revolutionize the spatial context within which companies transact business? Edward Leamer and Michael Storper ask this and other questions in their paper, "The Economic Geography of the Internet Age" (NBER Working Paper 8450).

While many researchers believe that the Internet's effect on economic geography may be more dramatic than that of past inventions, such as rail, steam, and the various forms of mechanization which emerged in the 19th century, the authors present the case that, instead, it is the Internet's lack of personal, physical contact that will prevent it from becoming the dominant means for transacting business.

The crux of their argument is that the "coordination of new and innovative activities depends on the successful transfer of complex uncodifiable messages, requiring a kind of closeness between the sender and receiver that the Internet does not allow. The problem with the Internet is that he cannot look her in the eye through a screen, and she cannot 'feel' or 'touch' him. It is a medium that may help to maintain relationships, but does not establish deep and complex contacts." The authors define an uncodifiable message as one that cannot be reduced to terms that are resolutely nonambiguous, citing the phrase, "I love you," as an example of a complex uncodifiable message.

Clustering of production. Both physical materials and the intellectual activities associated with them often are clustered in physical neighborhoods. Leamer and Storper write that this clustering suggests, "that present or future improvements in communication technologies, such as the Internet, also may not eliminate the role of proximity." They have studied the regularly-occurring phenomenon in economic geography that parallels what Isaac Newton discovered about gravity. In the business world, "the greater the distance between any pair of countries, the less they trade with one another.... In economics, the amount of commerce between two points is equal to the product of the economic masses (GDPs) divided not by the square of the distance between them but by distance itself (or some lower power)."

The proximity component is not the only important aspect of physical clustering. Communication costs and shipping costs may now be lower than at other times in history, but the authors claim it is *perishibility* (defined either as the concrete—fruits and vegetables, or the abstract—computers or items of high fashion design) coupled with *codifiability,* and the Internet's inadequacy as a medium allowing accurate, complete transfer of complex, abstract concepts. Codifiability is best established by information exchanged between people, and the facilitation of "long-term deep relationships over long distances [which] create the essential prerequisites of any complex transaction: trust and understanding."

Importance of relationships. Leamer and Storper contend it is not only the physical clustering but the intellectual clustering that is at the core of personal relationships in business. They cite that the Internet economy has produced "high densities of dot-com firms in San Francisco, Los Angeles, Seattle, and New York" as examples, and that this economy is following "the same geographical pattern as all of its innovative forebears: the establishment of a small number of core agglomerations, characterized by strong inter-firm and firm-labor market network relations, the existence of an 'industrial atmosphere,' and circular and cumulative advantage due to the building up of external economics in those places." Think Silicon Valley (West Coast Bay area), Silicon Alley (Manhattan), and Washington State's Microsoft Corporation.

The intellectual component becomes increasingly vital. The authors assert: "Many intellectual outputs are not products that can be dropped at the doorstep, but are services that have to be delivered by one human to another. Value is created jointly by seller and buyer, by coach and student, often involving many hours of direct communication.... It isn't just union power that has kept the labor-intensive universities operating in more or less the same manner for four centuries. It is the production function itself."

The handshake and the conversation. The absence of face-to-face contact is what the authors believe will prevent the Internet from taking the place of the "handshake," or as they term it "physical copresence." Only by a supplier getting to know his customer, and that customer understanding what her supplier means when he promises to ship the merchandise by a promised date are the basis of human relationships firmly established. "The Internet does nothing by itself to put a message in the right context, and doesn't help in understanding. Moreover, an Internet conversation resembles e-mail in that it involves such low levels of costs to sender and receiver that there is little relationship bond created by the process."

This lack of "emotional closeness" and the Internet's inability to accurately relay uncodifiable, ambiguous information would appear to dictate a continuing need for a higher level of trust and involvement than that conjured forth by the machinations of computers, capacitors, and modems. □

We are interested in your feedback on this column. Please let us know what you have found most interesting and what essential reading we may have missed. Write to: Executive Editor, *Monthly Labor Review*, 2 Massachusetts Avenue NE, Washington, DC 20212, or e-mail mlr@bls.gov

Solidarity: forever?

Worker Activism After Successful Union Organizing. By Linda Markowitz. Armonk, NY: M.E. Sharpe, Inc., 2000, 204 pp. $58.95.

At the turn of the century, the Industrial Workers of the World, or more affectionately the Wobblies, were undoubtedly the most flamboyant and colorful labor union in the United States, if not in the world. Conducting marches and demonstrations under unfurled American and worker flags, the Wobblies would occupy public parks, street corners, or major arenas, such as Madison Square Garden, and deliver spirited, sometimes incendiary, oratory for one specific purpose: to organize the unorganized. Even cynics give the Wobblies credit for organizing workers of different ethnic, racial, and sexual backgrounds, getting them to sign the union card and sing from the "little red song-book." From the agricultural fields of California to the meatpacking plants of Chicago and on to the textile mills of Patterson, New Jersey, and Lawrence, Massachusetts, the Wobblies were able to infuse a real sense of cohesion among the working class. The major criticism of the union, however, was their inability to maintain a functional infrastructure once the organizing campaign had been won.

In *Worker Activism After Successful Union Organizing*, author Linda Markowitz juxtaposes the union organizing process of the past with that of the present. Is the current labor movement repeating the mistakes of the past? In early 2001, the United Brotherhood of Carpenters disaffiliated from the AFL-CIO, charging that the old federation, despite the gospel of organization preached by President John Sweeney, has not fulfilled its pledge to organize the unorganized. Markowitz has followed labor's campaign to enlist workers at two different establishments, with different products, in diverse geographic areas, and with far different demographics. She offers a sharp contrast of organizing by traditional "business unionism" and another conducted on participatory activism by the rank-and-file.

The author traces the organizing campaign of two entities, Bobs Grocery Store (BGS) chain in Arizona, and Geofelt Manufacturing, in Pineville, Alabama. Her main thesis is that worker activism experienced during organizing campaigns diffuses outside campaign settings. By "outside settings" she means a general antilabor animus by employers, weak support or even hostility from Federal, State, and local governments, and the lack of a working class culture. It made little difference that the workforce composition at Geofelt Manufacturing was a heterogeneous mixture of white and black and male and female, the workers shared a natural cultural bond that grew stronger under the threat of outside pressures. At BGS, the workers differed mostly on a gender basis with the exception of a Latino presence. There was little that the workers had in common except for their employment.

The catalyst for organizing drives at both firms was ownership change. At BGS, workers went from a feeling of team and family to one of anger and mistrust, as new management increased production demands with fewer employees while reducing benefits and job status. At Geofelt Manufacturing, a foreign-owned firm with European work concepts that gave employees a good degree of job control, new management implemented an "Americanization" process with stricter definitions of work status and a more hierarchical control system. Discontent paralleled the rise in demand for union representation, states Markowitz.

While both BGS employees and Geofelt Manufacturing workers reached the same end—union representation, the process was much easier and genuine at the latter. The Amalgamated Clothing Workers Union (now United Needle, Industrial, and Textile Employees–UNITE) conducted an organizing "Blitz" where they concentrated on the one plant and immediately enlisted grassroot support, including local interests not directlly involved with any work-related Geofelt Manufacturing activities. Participatory Democracy, where the workers were involved in a step-by-step process for mobilizing their colleagues, allowed the employees to regard themselves as the union, not just cogs in the union representation machine attending to traditional collective bargaining matters. Markowitz contends there were three basic elements to this process: sharing information; open lines of communication; and decisionmaking by the workers.

At BGS, the author paints a starkly contrasted picture of traditional and stale organizing policies, long referred to since the days of Samuel Gompers as "business unionism." The United Food and Commercial Workers Union sent organizers from California to organize not just BGS, but other chain grocery stores in the area. Their attentions divided among many different targets in the retail grocery industry and the organizing drive was a top down process. Workers never felt empowered nor considered themselves together in the struggle for better wages and working conditions. As a result, the process was long and tedious, despite overwhelming support for representation by the workers. The author infers that the union at BGS will never be particularly strong and will be susceptible to adversarial forces, particularly if market conditions deteriorate and employees respond accordingly.

The author argues that the key to maintaining a strong viable union organization, and not suffer Wobbly-type ineffectiveness, is continued evolution of worker involvement. "Human nature is learned and people are adaptable." This is particularly poignant to organizing in today's volatile economic climate. The United Auto Workers, for example, have partnered with the big three auto manufacturers in "paid educational leave" programs. They have not abro-

gated their collective bargaining responsibilities, but agree that their members can better identify as the union if they know something about the companies they work for and the economic environments in which those entities exist. The labor-management cooperative programs of the 1970s and 1980s, the author grudgingly concedes, were cooptive but still added to the experiences of workers so they could infuse those aforementioned basic elements of information sharing, communicating, and decisionmaking into day-to-day functions.

The theories expressed in the book are nothing new or novel. The brief analysis of the history and development of our employment system and the rise of organized labor can be found in any basic labor-relations textbook. Even in the more philosophical analyses of the work process and human nature, the influence, whether acknowledged or not, of radical philosophers such as Herbert Marcuse and Antonio Gramsci is evident.

There are also a few errors of fact. For example, on page 18 the author states that "President Clinton has failed to support policy banning the replacement of striking workers...."

As one of two investigators on President Clinton's Executive Order 12954, which would have disbarred firms from lucrative government contracts if they permanently replaced striking workers, I had to report on two large firms with the intent of carrying through the order. The courts ruled Executive Order 13954 as unconstitutional, but that did not discount the President's policies.

Despite these marginal criticisms, this is an interesting and thought-provoking book. Markowitz has consulted the works of recognized scholars in the areas of human psychology, labor relations, organizational development, and sociology. She has added to the ever transitional wealth of literature on workplace relations and how they will look in the 21st century. I look forward to a sequel on the progress of union development at both BGS and Geofelt Manufacturing. Will one organizational culture succeed over the other? Will both frameworks find their own particular niches in the world of organized labor? Will one, both, or neither succumb to the failed legacy of the Wobblies?

—Henry P. Guzda

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Employees at Work

A Working Nation: Workers, Work, and Government in the New Economy. By David T. Ellwood, Rebecca M. Blank, and others. New York, Russell Sage Foundation, 2000. 146 pp.

Sponsored by the Aspen Institute's Domestic Strategy Group, this volume deals with some of the causes of the inequality of earnings that has increasingly characterized the wages and benefits of male workers and their families over the decades since the early 1970s (it slightly decreased during the late 1990s). While the volume's title refers to the "New Economy," the term remains undefined, and we may disregard it. One of the announced purposes of the studies presented is to deal with "the future of work," but the authors avoid doing so. However, the "the future of work" may well be viewed here in terms of the continuation of the trends that have prevailed over the period analyzed. This would imply that adapting to new work patterns and technologies by most low-wage workers will be too slow to significantly change those trends.

David Ellwood presents and interprets the basic facts of wage and income inequality, and does so in a spare, lucid style. He derives the data from national income statistics and the Current Population Survey, making adjustments (for example, for inflation) he deems appropriate. He divides the income distribution into thirds, which may be a bit crude but makes for clarity. He figures the national income on a per-adult (rather than per-person) basis. He reports total compensation of wage and salary workers separately for men and women. Subsequently, he reports the income from work and other sources for two-parent families with children by thirds of educational grouping. He does the same for single-parent families.

While median compensation of men in the top third of the income distribution rose 28 percent between 1973 and 1996, compensation of men in the middle third declined 3 percent, and of men in the bottom third 8 percent. The pattern for husbands in two-parent families is similar if somewhat more moderate; compensation of these men rose 31 percent in the top third educational grouping, 4 percent in the middle third, and remained unchanged over the period in the bottom third. "It is simply not true that middle and working class men get much of the income generated in our nation," writes Ellwood.

The decline in median compensation shown for these men was suffered entirely by men under 45 years old, with those in the 18–34 age brackets being affected most. It was associated with a full or less than full high school education, but also with "some" post-high school education. All the increase in compensation occurred among college and post- college graduates. It remains, however, that compensation of men in the higher age brackets improved, reflecting experience and tenure.

Women's median compensation rose in all income and education brackets over the 1973–96 span. The increase was largest, however, in the top third of the income distribution and of the educational grouping of two-parent families. Hence, income of two-parent families benefited from wives' earnings, although in the bottom third it rose but 14 percent, compared with 57 percent and 25 percent in the top and middle thirds

(by educational grouping).

Inequality of family income intensified between 1973 and 1996. In 1973 the top one-third of families had income from compensation and other sources—for example, dividends, net interest, and rent—that exceed the middle third by 32 percent, and the bottom third by 61 percent. In 1996, the respective differences ran to 66 percent and 122 percent. Inequality also sharpened when income of single-parent families is compared with that of two-parent families: the former "had less than half of the income of families with two parents for each level of parental education."

Ellwood writes "the traditional cost of living adjustment would show little or no increase in income for families at the bottom." Those at the bottom are poorer today than they were 20–25 years ago – a factor that also diminishes opportunities for children. For example, higher earnings are more and more associated with college education, but that has become virtually unattainable for poor people: the entire increase in college attendance has stemmed from children in families in the top 60 percent of the income distribution.

Substantial differences in understanding the widening earnings gap and ways of dealing with it are evident from essays by two contributors to the volume—one by William A. Niskanen, the other by Rebecca M. Blank. Both are one-time members of the Council of Economic Advisors, the former under President Reagon, and the latter under President Clinton. We cite some examples.

Both Niskanen and Blank support the Earned Income Tax Credit (EITC) as a subsidy to low-wage workers. Niskanen, however, opposes the minimum wage as a hindrance to the hiring of low-skilled workers, while Blank strongly supports it as being inseparable from the EITC, hence as "substantially (improving) the returns to work among low-wage workers in the face of declining or stagnant market wages." Blank extends the argument, viewing minimum wage laws as seeking "to assure that work provides economic sufficiency." Equally important, the minimum wage, together with the EITC, helps reverse and forestall the devaluation of work often linked with declining pay. She also urges the adoption of adequate child care and health plan insurance subsidies, again so as to raise compensation and secure family well-being. She does not believe that the labor market by itself will raise low-wage workers' earnings sufficiently to ensure an adequate living standard.

Niskanen and Blank offer divergent conceptions of what lies at the root of the widening earnings gap. Nikanen traces that gap to some of the personal characteristics and social settings of low-skill workers. He mentions negligent attitudes toward work and such "dramatic changes in family structure" as the great increase in births by single mothers, which has made for poor schools and employment problems. Remedial policies should be focused accordingly. They should include removal of impediments to a more freely operating labor market, such as the minimum wage (as noted) and prevented the erosion of the "employment at will" doctrine which, according to Niskanen, increases the expected cost of hiring.

Blank is more concerned than Niskanen with demand-side sources of the earnings gap, and with institutional weakness she believes should be overcome—for example, difficulties of the school-to-work transition faced by many youngsters. Thus, she holds that "widening inequality among workers with similar education levels in the same industry or occupation suggests that firms are trying to link pay more directly to individual productivity," and that "changes in the use and management of labor" seem to be "linked closely" to the widening earnings gap. The growing use of temporary workers and of outsourcing is part of that policy, as is the decline of unions, which have traditionally resisted wage variance among defined categories of workers in given industries or firms, but have had to accede, for example, to so-called two-tier wage agreements in many circumstances. Thus, wage variance can perhaps be modified only if union possess the necessary bargaining power, which in this respect they evidently lack.

Blank is not sanguine about the effects of training involving today's low-skilled workers, although she emphatically advocates it. She writes that few workers raise their skill levels after their mid-twenties. Training under the Job Training Partnership Act has had but modest effects on post-training wages, and increases in these wages soon eroded. Training programs for public assistance recipients have had better success, however.

A lengthy essay by two contributors to the volume, Joseph Blasi and Douglass Kruse, titled "The New Employee-Employer Relationship," inter alia deals extensively with the subject of training. They write that "(t)he new skills needed by new employees are generally developed through informal training," that is, inhouse and on the job. More formal training is sponsored by, or occurs, mostly in large establishments where turnover is low, and where the employees, already college-educated, are professionals or technicians. American employers are generally reluctant to invest in training, partly because of high voluntary turnover, partly because of high probabilities of worker displacement occasioned by product changes, increased productivity by way of new equipment or new work organization, foreign competition, and so forth. Be it noted that worker displacement is viewed by the authors as an aspect of the weakening of the relationship between employee and employer rather than merely in connection with training. One may regard worker displacement, however, as in part a social loss, a loss of skills specific to the occupation and firm of the displaced worker, which she or he cannot easily

unlearn. According to the authors, displacements were not quite as high during the mid-1990s as they had been during the recession of the early 1980s, indicating a disturbing trend.

Blasi and Douglas devote a section of their essay to high-performance work practices and their diffusion. They lean toward acceptance of the argument that unless such work practices are combined, that is, not introduced piecemeal, their effectiveness is questionable. Among them, they list careful selection of workers; decentralized management; quality circles; sharing of gains from enhanced productivity with workers bringing them about; no layoffs of workers as productivity rises; job rotation; and work-related meetings. Very few of the firms surveyed had adopted a full complement of such innovative work (or better: managerial) practices. The authors list some of the significant technical, managerial, and cost barriers to that failure. They make no mention, however, of the origin of such practices in Japan, where their success has been partly attributable to less confrontational worker-management attitudes than in the United States, and to entrenched customs ensuring tenure and seniority. Blasi and Douglas write that tenure in the United States has tended to decline. The employment of contingent workers, that is, workers hired on a temporary or part-time basis, greatly increased during the 1990s. They do not discuss whether such workers fit the "team" concept which in large part underlies high-performance work practices.

A Working Nation is a well-conceived summary and analysis of key problems facing a large proportion of working people and their families. These problems have been in the forefront of concern of labor economists and the Department of Labor over the past four decades. It is a good thing that they also are kept in the forefront of public attention, such as this volume will help ensure.

—Horst Brand

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formerly with the
Bureau of Labor Statistics

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This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force; employment; unemployment; labor compensation; consumer, producer, and international prices; productivity; international comparisons; and injury and illness statistics. In the notes that follow, the data in each group of tables are briefly described; key definitions are given; notes on the data are set forth; and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted data appear in tables 1–14, 16–17, 39, and 43. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 2001 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14 and 16–17 were revised in the July 2000 *Review* and reflect the experience through March 2000. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 45 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current-dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 x 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2490. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 919. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule appearing on the back cover of this issue.

More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in the Bureau's monthly publication, *Employment and Earnings*. Historical unadjusted and seasonally adjusted data from the household survey are available on the Internet:

http://stats.bls.gov/cpshome.htm

Historically comparable unadjusted and seasonally adjusted data from the establishment survey also are available on the Internet:

http://stats.bls.gov/ceshome.htm

Additional information on labor force data for areas below the national level are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95*, BLS Bulletin 2466. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms; Employee Benefits in Small Private Establishments;* and *Employee Benefits in State and Local Governments*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the 1998 revision of the CPI, see the December 1996 issue of the *Monthly Labor Review*. Additional data on international prices appear in monthly news releases.

Listings of industries for which productivity indexes are available may be found on the Internet:

http://stats.bls.gov/iprhome.htm

For additional information on international comparisons data, see *International Comparisons of Unemployment*, BLS Bulletin 1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry*, a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

n.e.c. = not elsewhere classified.
n.e.s. = not elsewhere specified.
p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
r = revised. Generally, this revision reflects the availability of later data, but also may reflect other adjustments.

Comparative Indicators

(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2.

Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

Employment and Unemployment Data

(Tables 1; 4–20)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy. The **civilian labor force participation** rate is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ratio** is employment as a percent of the civilian noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*.

Labor force data in tables 1 and 4–9 are seasonally adjusted. Since January 1980, national labor force data have been seasonally adjusted with a procedure called X-11 ARIMA which was developed at Statistics Canada as an extension of the standard X-11 method previously used by BLS. A detailed description of the procedure appears in the X-11 *ARIMA Seasonal Adjustment Method,* by Estela Bee Dagum (Statistics Canada, Catalogue No. 12-564E, January 1983).

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical seasonally adjusted data usually are revised for only the most recent 5 years. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July–December period, but no revisions are made in the historical data.

FOR ADDITIONAL INFORMATION on national household survey data, contact the Division of Labor Force Statistics: (202) 691–6378.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 300,000 establishments representing all industries except agriculture. Industries are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual.* In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th day of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

Production workers in manufacturing include working supervisors and nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11–16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay

for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received, and are different from standard or scheduled hours. **Overtime hours** represent the portion of average weekly hours which was in excess of regular hours and for which overtime premiums were paid.

The **Diffusion Index** represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Data are centered within the span. Table 17 provides an index on private nonfarm employment based on 356 industries, and a manufacturing index based on 139 industries. These indexes are useful for measuring the dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The latest adjustment, which incorporated March 1999 benchmarks, was made with the release of May 2000 data, published in the July 2000 issue of the *Review.* Coincident with the benchmark adjustment, historical seasonally adjusted data were revised to reflect updated seasonal factors. Unadjusted data from April 1999 forward and seasonally adjusted data from January 1996 forward are subject to revision in future benchmarks.

In addition to the routine benchmark revisions and updated seasonal factors introduced with the release of the May 2000 data, all estimates for the wholesale trade division from April 1998 forward were revised to incorporate a new sample design. This represented the first major industry division to convert to a probability-based sample under a 4-year phase-in plan for the establishment survey sample redesign project. For additional information, see the the June 2000 issue of *Employment and Earnings.*

Revisions in State data (table 11) occurred with the publication of January 2000 data.

Beginning in June 1996, the BLS uses the X-12 ARIMA methodology to seasonally adjust establishment survey data. This procedure, developed by the Bureau of the Census, controls for the effect of varying survey intervals (also known as the 4- versus 5-week effect), thereby providing improved measurement of over-the-month changes and underlying economic trends. Revisions of data, usually for the most recent 5-year period, are made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review).* When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, fourth-quarter data are published as preliminary in January and February and as final in March.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Monthly Industry Employment Statistics: (202) 691–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions, and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act. Seasonally adjusted unemployment rates are presented in table 10. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for all States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates are revised to new population controls, usually with publication of January estimates, and benchmarked to annual average CPS levels.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 691–6392 (table 10) or (202) 691–6559 (table 11).

Compensation and Wage Data

(Tables 1–3; 21–27)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

Statistical series on total compensation costs, on wages and salaries, and on benefit costs are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. The total compensation costs and wages and salaries series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 4,400 private nonfarm establishments providing about 23,000 occupational observations and 1,000 State and local government establishments providing 6,000 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of

wages and compensation. For the bargaining status, region, and metropolitan/non-metropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer's costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as Social Security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981=100) are available on the Internet:

http://stats.bls.gov/ecthome.htm

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Office of Compensation Levels and Trends: (202) 691–6199.

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 9,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 25 for medium and large private establishments and in table 26 for small private establishments and State and local government.

The survey covers paid leave benefits such as holidays and vacations, and personal, funeral, jury duty, military, family, and sick leave; short-term disability, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid family leave.

Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs.

Definitions

Employer-provided benefits are benefits that are financed either wholly or partly by the employer. They may be sponsored by a union or other third party, as long as there is some employer financing. However, some benefits that are fully paid for by the employee also are included. For example, long-term care insurance and postretirement life insurance paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Participants are workers who are covered by a benefit, whether or not they use that benefit. If the benefit plan is financed wholly by employers and requires employees to complete a minimum length of service for eligibility, the workers are considered participants whether or not they have met the requirement. If workers are required to contribute towards the cost of a plan, they are considered participants only if they elect the plan and agree to make the required contributions.

Defined benefit pension plans use predetermined formulas to calculate a retirement benefit (if any), and obligate the employer to provide those benefits. Benefits are generally based on salary, years of service, or both.

Defined contribution plans generally specify the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts.

Tax-deferred savings plans are a type of defined contribution plan that allow participants to contribute a portion of their salary to an employer-sponsored plan and defer income taxes until withdrawal.

Flexible benefit plans allow employees to choose among several benefits, such as life insurance, medical care, and vacation days, and among several levels of coverage within a given benefit.

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979–86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979–89 period excluded establishments in Alaska and Hawaii, as well as part-time employees.

Beginning in 1990, surveys of State and local governments and small private establishments were conducted in even-numbered years, and surveys of medium and large establishments were conducted in odd-numbered years. The small establishment survey includes all private nonfarm establishments with fewer than 100 workers, while the State and local government survey includes all governments, regardless of the number of workers. All three surveys include full- and part-time workers, and workers in all 50 States and the District of Columbia.

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Office of Compensation Levels and Trends on the Internet:

http://stats.bls.gov/ebshome.htm

Work stoppages

Description of the series

Data on work stoppages measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of work time lost because of stoppage. These data are presented in table 27.

Data are largely from a variety of published sources and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

Workers involved: The number of

workers directly involved in the stoppage.

Number of days idle: The aggregate number of workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

FOR ADDITIONAL INFORMATION on work stoppages data, contact the Office of Compensation and Working Conditions: (202) 691–6282, or the Internet:

http://stats.bls.gov/cbahome.htm

Price Data

(Tables 2; 28–38)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—1982 = 100 for many Producer Price Indexes, 1982–84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1993–95 buying habits of about 87 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 29. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are meaured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of home-ownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 and January 1998 data.

FOR ADDITIONAL INFORMATION on consumer prices, contact the Division of Consumer Prices and Price Indexes: (202) 691–7000.

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the Standard Industrial Classification (SIC) and the product code extension of the SIC developed by the U.S. Bureau of the Census.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1992, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1987. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

FOR ADDITIONAL INFORMATION on producer prices, contact the Division of Industrial Prices and Price Indexes: (202) 691–7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts; it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected primarily by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products,

the prices refer to transactions completed during the first week of the month. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification (SITC), and the four-digit level of detail for the Harmonized System. Aggregate import indexes by country or region of origin are also available.

BLS publishes indexes for selected categories of internationally traded services, calculated on an international basis and on a balance-of-payments basis.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each harmonized group and are then aggregated to the higher level. The values assigned to each weight category are based on trade value figures compiled by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1995.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f.(costs, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges. For a given product, only one price basis series is used in the construction of an index.

FOR ADDITIONAL INFORMATION on international prices, contact the Division of International Prices: (202) 691–7155.

Productivity Data

(Tables 2; 39–42)

Business sector and major sectors

Description of the series

The productivity measures relate real output to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour, output per unit of labor input, or output per unit of capital input, as well as measures of multifactor productivity (output per unit of combined labor and capital inputs). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, non-energy materials, and purchased business services.

Compensation per hour is total compensation divided by hours at work. Total compensation equals the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, plus an estimate of these payments for the self-employed (except for nonfinancial corporations in which there are no self-employed). **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

Unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

Hours of all persons are the total hours at work of payroll workers, self-employed persons, and unpaid family workers.

Labor inputs are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

Capital services are the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Combined units of labor and capital inputs are derived by combining changes in labor and capital input with weights which represent each component's share of total cost. Combined units of labor, capital, energy, materials, and purchased business services are similarly derived by combining changes in each input with weights that represent each input's share of total costs. The indexes for each input and for combined units are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 39–42 describe the relation-

ship between output in real terms and the labor and capital inputs involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input.

Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 691–5606.

Industry productivity measures

Description of the series

The BLS industry productivity data supplement the measures for the business economy and major sectors with annual measures of labor productivity for selected industries at the three- and four-digit levels of the Standard Industrial Classification system. In addition to labor productivity, the industry data also include annual measures of compensation and unit labor costs for three-digit industries and measures of multifactor productivity for three-digit manufacturing industries and railroad transportation. The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

Output per hour is derived by dividing an index of industry output by an index of labor input. For most industries, **output** indexes are derived from data on the value of industry output adjusted for price change. For the remaining industries, output indexes are derived from data on the physical quantity of production.

The **labor input** series consist of the hours of all employees (production workers and nonproduction workers), the hours of all persons (paid employees, partners, proprietors, and unpaid family workers), or the number of employees, depending upon the industry.

Unit labor costs represent the labor compensation costs per unit of output produced, and are derived by dividing an index of labor compensation by an index of output. **Labor compensation** includes payroll as well as supplemental payments, including both legally required expenditures and payments for voluntary programs.

Multifactor productivity is derived by dividing an index of industry output by an index of the combined inputs consumed in producing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** used represents the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories. The measure of **intermediate purchases** is a combination of purchased materials, services, fuels, and electricity.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics and the Bureau of the Census, with additional data supplied by other government agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some trade and services industries, indexes of output per hour of all persons (including self-employed) are constructed. For some transportation industries, only indexes of output per employee are prepared.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691–5618.

International Comparisons

(Tables 43–45)

Labor force and unemployment

Description of the series

Tables 43 and 44 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and several European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country. For further information on adjustments and comparability issues, see Constance Sorrentino, "International unemployment rates: how comparable are they?" *Monthly Labor Review*, June 2000, pp. 3-20.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on Employment and Unemployment Data: Household survey data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and older. Therefore, the adjusted statistics relate to the population aged 16 and older in France, Sweden, and the United Kingdom; 15 and older in Australia, Japan, Germany, Italy from 1993 onward, and the Netherlands; and 14 and older in Italy prior to 1993. An exception to this rule is that the Canadian statistics for 1976 onward are adjusted to cover ages 16 and older, whereas the age at which compulsory schooling ends remains at 15. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their jobs are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8–11.

The figures for one or more recent years for France, Germany, Italy, the Netherlands, and the United Kingdom are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries, therefore, are subject to revision whenever data from more current labor force surveys become available.

There are breaks in the data series for the United States (1990, 1994, 1997, 1998, 1999, 2000), Canada (1976) France (1992), Germany (1991), Italy (1991, 1993), the Netherlands (1988), and Sweden (1987).

For the United States, the break in series reflects a major redesign of the labor force survey questionnaire and collection methodology introduced in January 1994. Revised population estimates based on the 1990 census, adjusted for the estimated undercount, also were incorporated. In 1996, previously

published data for the 1990–93 period were revised to reflect the 1990 census-based population controls, adjusted for the undercount. In 1997, revised population controls were introduced into the household survey. Therefore, the data are not strictly conparable with prior years. In 1998, new composite estimation procedures and minor revisions in population controls were introduced into the household survey. Therefore, the data are not strictly comparable with data for 1997 and earlier years. See the Notes section on Employment and Unemployment Data of this *Review*.

BLS recently introduced a new adjusted series for Canada. Beginning with the data for 1976, Canadian data are adjusted to more closely approximate U.S. concepts. Adjustments are made to the unemployed and labor force to exclude: (1) 15-year-olds; (2) passive jobseekers (persons only reading newspaper ads as their method of job search); (3) persons waiting to start a new job who did not seek work in the past 4 weeks; and (4) persons unavailable for work due to personal or family responsibilities. An adjustment is made to include full-tine students looking for full-time work. The impact of the adjustments was to lower the annual average unemployment rate by 0.1–0.4 percentage point in the 1980s and 0.4–1.0 percentage point in the 1990s.

For France, the 1992 break reflects the substitution of standardized European Union Statistical Office (EUROSTAT) unemployment statistics for the unemployment data estimated according to the International Labor Office (ILO) definition and published in the Organization for Economic Cooperation and Development (OECD) annual yearbook and quarterly update. This change was made because the EUROSTAT data are more up-to-date than the OECD figures. Also, since 1992, the EUROSTAT definitions are closer to the U.S. definitions than they were in prior years. The impact of this revision was to lower the unemployment rate by 0.1 percentage point in 1992 and 1993, by 0.4 percentage point in 1994, and 0.5 percentage point in 1995.

For Germany, the data for 1991 onward refer to unified Germany. Data prior to 1991 relate to the former West Germany. The impact of including the former East Germany was to increase the unemployment rate from 4.3 to 5.6 percent in 1991.

For Italy, the 1991 break reflects a revision in the method of weighting sample data. The impact was to increase the unemployment rate by approximately 0.3 percentage point, from 6.6 to 6.9 percent in 1991.

In October 1992, the survey methodology was revised and the definition of unemployment was changed to include only those who were actively looking for a job within the 30 days preceding the survey and who were available for work. In addition, the lower age limit for the labor force was raised from 14 to 15 years. (Prior to these changes, BLS adjusted Italy's published unemployment rate downward by excluding from the unemployed those persons who had not actively sought work in the past 30 days.) The break in the series also reflects the incorporation of the 1991 population census results. The impact of these changes was to raise Italy's adjusted unemployment rate by approximately 1.2 percentage points, from 8.3 to 9.5 percent in fourth-quarter 1992. These changes did not affect employment significantly, except in 1993. Estimates by the Italian Statistical Office indicate that employment declined by about 3 percent in 1993, rather than the nearly 4 percent indicated by the data shown in table 44. This difference is attributable mainly to the incorporation of the 1991 population benchmarks in the 1993 data. Data for earlier years have not been adjusted to incorporate the 1991 census results.

For the Netherlands, a new survey questionnaire was introduced in 1992 that allowed for a closer application of ILO guidelines. EUROSTAT has revised the Dutch series back to 1988 based on the 1992 changes. The 1988 revised unemployment rate is 7.6 percent; the previous estimate for the same year was 9.3 percent.

There have been two breaks in series in the Swedish labor force survey, in 1987 and 1993. Adjustments have been made for the 1993 break back to 1987. In 1987, a new questionnaire was introduced. Questions regarding current availability were added and the period of active workseeking was reduced from 60 days to 4 weeks. These changes lowered Sweden's 1987 unemployment rate by 0.4 percentage point, from 2.3 to 1.9 percent. In 1993, the measurement period for the labor force survey was changed to represent all 52 weeks of the year rather than one week each month and a new adjustment for population totals was introduced. The impact was to raise the unemployment rate by approximately 0.5 percentage point, from 7.6 to 8.1 percent. Statistics Sweden revised its labor force survey data for 1987–92 to take into account the break in 1993. The adjustment raised the Swedish unemployment rate by 0.2 percentage point in 1987 and gradually rose to 0.5 percentage point in 1992.

Beginning with 1987, BLS has adjusted the Swedish data to classify students who also sought work as unemployed. The impact of this change was to increase the adjusted unemployment rate by 0.1 percentage point in 1987 and by 1.8 percentage points in 1994, when unemployment was higher. In 1998, the adjusted unemployment rate had risen from 6.5 to 8.4 percent due to the adjustment to include students.

The net effect of the 1987 and 1993 changes and the BLS adjustment for students seeking work lowered Sweden's 1987 unemployment rate from 2.3 to 2.2 percent.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Manufacturing productivity and labor costs

Description of the series

Table 45 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) in the United States, Canada, Japan, France, Germany, Norway, and Sweden, and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing from the national accounts of each country. However, the output series for Japan prior to 1970 is an index of industrial production, and the national accounts measures for the United Kingdom are essentially identical to their indexes of industrial production.

The 1977–97 output data for the United States are the gross product originating (value added) measures prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Comparable manufacturing output data currently are not available prior to 1977.

U.S. gross product originating is a chain-type annual-weighted series. (For more information on the U.S. measure, see Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," *Survey of Current Business*, August 1996, pp. 133–55.) The Japanese value added series is based upon one set of fixed price weights for the years 1970 through 1997. Output series for the other foreign economies also employ fixed price weights, but the weights are updated periodically (for example, every 5 or 10 years).

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 39 and 41 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

Total labor hours refers to hours worked in all countries. The measures are developed from statistics of manufacturing employment and average hours. The series used for France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. Where official total hours series are not available, the measures are developed by BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked. For Germany, BLS uses estimates of average hours worked developed by a research institute connected to the Ministry of Labor for use with the national accounts employment figures. For the other countries, BLS constructs its own estimates of average hours.

Denmark has not published estimates of average hours for 1994–97; therefore, the BLS measure of labor input for Denmark ends in 1993.

Total compensation (labor cost) includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. The measures are from the national accounts of each country, except those for Belgium, which are developed by BLS using statistics on employment, average hours, and hourly compensation. For Canada, France, and Sweden, compensation is increased to account for other significant taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for employment-related subsidies. Self-employed workers are included in the all-employed-persons measures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (for all years) and Italy (beginning 1970) refer to mining and manufacturing less energy-related products, and the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966.

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Occupational Injury and Illness Data

(Tables 46–47)

Survey of Occupational Injuries and Illnesses

Description of the series

The Survey of Occupational Injuries and Illnesses collects data from employers about their workers' job-related nonfatal injuries and illnesses. The information that employers provide is based on records that they maintain under the Occupational Safety and Health Act of 1970. Self-employed individuals, farms with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies are excluded from the survey.

The survey is a Federal-State cooperative program with an independent sample selected for each participating State. A stratified random sample with a Neyman allocation is selected to represent all private industries in the State. The survey is stratified by Standard Industrial Classification and size of employment.

Definitions

Under the Occupational Safety and Health Act, employers maintain records of nonfatal work-related injuries and illnesses that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

Occupational injury is any injury such as a cut, fracture, sprain, or amputation that results from a work-related event or a single, instantaneous exposure in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday injuries and illnesses are cases that involve days away from work, or days of restricted work activity, or both.

Lost workdays include the number of workdays (consecutive or not) on which the employee was either away from work or at work in some restricted capacity, or both, because of an occupational injury or illness. BLS measures of the number and incidence rate of lost workdays were discontinued beginning with the 1993 survey. The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked, such as a Federal holiday, even though able to work.

Incidence rates are computed as the number of injuries and/or illnesses or lost work days per 100 full-time workers.

Notes on the data

The definitions of occupational injuries and illnesses are from *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (U.S. Department of Labor, Bureau of Labor Statistics, September 1986).

Estimates are made for industries and employment size classes for total recordable cases, lost workday cases, days away from work cases, and nonfatal cases without lost workdays. These data also are shown separately for injuries. Illness data are available for seven categories: occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic agents), disorders due to physical agents (other than toxic materials), disorders associated with repeated trauma, and all other occupational illnesses.

The survey continues to measure the number of new work-related illness cases which are recognized, diagnosed, and reported during the year. Some conditions, for example, long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These long-term latent illnesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example, contact dermatitis and carpal tunnel syndrome).

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses per 100 equivalent full-time workers. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Full detail on the

available measures is presented in the annual bulletin, *Occupational Injuries and Illnesses: Counts, Rates, and Characteristics.*

Comparable data for more than 40 States and territories are available from the BLS Office of Safety, Health and Working Conditions. Many of these States publish data on State and local government employees in addition to private industry data.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration. Data from these organizations are included in both the national and State data published annually.

With the 1992 survey, BLS began publishing details on serious, nonfatal incidents resulting in days away from work. Included are some major characteristics of the injured and ill workers, such as occupation, age, gender, race, and length of service, as well as the circumstances of their injuries and illnesses (nature of the disabling condition, part of body affected, event and exposure, and the source directly producing the condition). In general, these data are available nationwide for detailed industries and for individual States at more aggregated industry levels.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the Office of Occupational Safety, Health and Working Conditions at (202) 691–6180, or access the Internet at:

http://www.bls.gov/oshhome.htm

Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers' compensation reports, Occupational Safety and Health Administration and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

In addition to private wage and salary workers, the self-employed, family members, and Federal, State, and local government workers are covered by the program. To be included in the fatality census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job.

Definition

A fatal work injury is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy, such as heat or electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

FOR ADDITIONAL INFORMATION on the Census of Fatal Occupational Injuries contact the BLS Office of Safety, Health, and Working Conditions at (202) 691–6175, or the Internet at:

http://www.bls.gov/oshhome.htm

Bureau of Labor Statistics Internet

The Bureau of Labor Statistics World Wide Web site on the Internet contains a range of data on consumer and producer prices, employment and unemployment, occupational compensation, employee benefits, workplace injuries and illnesses, and productivity. The homepage can be accessed using any Web browser:

http://stats.bls.gov

Also, some data can be accessed through anonymous FTP or Gopher at

stats.bls.gov

1. Labor market indicators

Selected indicators	1999	2000	1999			2000				2001	
			II	III	IV	I	II	III	IV	I	II
Employment data											
Employment status of the civilian noninstitutionalized population (household survey):[1]											
Labor force participation rate	67.1	67.2	67.1	67.1	67.1	67.4	67.3	67.0	67.1	67.2	66.9
Employment-population ratio	64.3	64.5	64.2	64.2	64.3	64.6	64.6	64.3	64.4	64.4	63.9
Unemployment rate	4.2	4.0	4.3	4.2	4.1	4.1	4.0	4.0	4.0	4.2	4.5
Men	4.1	3.9	4.2	4.1	4.0	3.9	3.9	3.9	4.0	4.3	4.6
16 to 24 years	10.3	9.7	10.5	10.1	10.3	9.7	9.8	9.8	9.6	10.6	11.2
25 years and over	3.0	2.8	3.0	3.0	2.9	2.8	2.8	2.8	2.9	3.1	3.4
Women	4.3	4.1	4.4	4.3	4.2	4.2	4.1	4.2	4.0	4.2	4.3
16 to 24 years	9.5	8.9	9.2	9.6	9.4	9.5	9.0	8.6	8.6	8.6	9.2
25 years and over	3.3	3.2	3.5	3.3	3.1	3.2	3.2	3.3	3.0	3.3	3.4
Employment, nonfarm (payroll data), in thousands:[1]											
Total	128,916	131,759	128,430	129,073	129,783	130,984	131,854	131,927	132,264	132,559	132,485
Private sector	108,709	111,079	108,319	108,874	109,507	110,456	110,917	111,293	111,669	111,886	111,708
Goods-producing	25,507	25,709	25,454	25,459	25,524	25,704	25,711	25,732	25,704	25,621	25,314
Manufacturing	18,552	18,469	18,543	18,516	18,482	18,504	18,510	18,487	18,378	18,188	17,885
Service-producing	103,409	106,050	102,976	103,614	104,259	105,280	106,143	106,195	106,560	106,938	107,171
Average hours:											
Private sector	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.4	34.3	34.3	34.2
Manufacturing	41.7	41.6	41.7	41.8	41.7	41.8	41.8	41.5	41.1	41.0	40.8
Overtime	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.5	4.3	4.1	3.9
Employment Cost Index[2]											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers)	3.4	4.1	1.0	1.1	.9	1.3	1.0	1.0	.7	1.3	.9
Private industry workers	3.4	4.4	1.1	.9	.9	1.5	1.2	.9	.7	1.4	1.0
Goods-producing[3]	3.4	4.4	.7	.9	1.0	1.6	1.2	.9	.6	1.3	.9
Service-producing[3]	3.4	4.4	1.3	.9	.8	1.4	1.2	1.0	.7	1.4	1.0
State and local government workers	3.4	3.0	.4	1.5	1.0	.6	.3	1.3	.7	.9	.6
Workers by bargaining status (private industry):											
Union	2.7	4.0	.7	.9	.7	1.3	1.0	1.2	.5	.7	1.1
Nonunion	3.6	4.4	1.2	.9	1.0	1.5	1.2	1.0	.7	1.5	1.0

[1] Quarterly data seasonally adjusted.

[2] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

[3] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	1999	2000	1999			2000				2001	
			II	III	IV	I	II	III	IV	I	II
Compensation data[1,2]											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm	3.4	4.1	1.0	1.1	0.9	1.3	1.0	1.0	0.7	1.3	0.9
Private nonfarm	3.4	4.4	1.1	.9	.9	1.5	1.2	.9	.7	1.4	1.0
Employment Cost Index—wages and salaries:											
Civilian nonfarm	3.5	3.8	1.0	1.1	.8	1.1	1.0	1.1	.6	1.1	.9
Private nonfarm	3.5	3.9	1.2	.9	.9	1.2	1.0	1.0	.6	1,2	1.0
Price data[1]											
Consumer Price Index (All Urban Consumers): All items	2.7	1.0	.7	1.0	.2	1.7	.7	.8	–.1	1.0	1.0
Producer Price Index:											
Finished goods	2.9	1.0	1.2	1.5	.1	1.4	1.3	.6	1.0	1.0	1.0
Finished consumer goods	3.8	1.0	1.8	2.2	–.2	1.8	1.8	.7	1.0	1.0	1.0
Capital equipment	.3	1.0	–.4	–.4	1.2	.1	.0	.0	I.0	–.1	1.0
Intermediate materials, supplies, and components	3.7	1.0	1.9	1.9	.1	1.9	1.6	1.0	–.1	1.0	1.0
Crude materials	15.3	1.2	9.4	10.2	–3.5	9.1	11.2	.3	1.1	–.1	1.0
Productivity data[3]											
Output per hour of all persons:											
Business sector	2.8	4.3	–1.1	2.9	7.0	–.6	7.3	1.0	3.0	.0	2.8
Nonfarm business sector	2.6	4.3	–1.4	3.0	7.4	–.6	6.3	1.4	2.3	.1	2.5
Nonfinancial corporations[4]	3.5	4.2	.4	2.8	4.5	4.0	7.1	4.0	1.6	.6	2.8

[1] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter. Compensation and price data are not seasonally adjusted, and the price data are not compounded.

[2] Excludes Federal and private household workers.

[3] Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

[4] Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ending					
	2000				2001		2000				2001	
	I	II	III	IV	I	II	I	II	III	IV	I	II
Average hourly compensation:[1]												
All persons, business sector	5.9	8.6	6.5	9.4	5.3	5.2	4.7	5.7	6.1	7.6	7.4	6.6
All persons, nonfarm business sector	6.2	7.6	7.1	8.9	5.1	4.7	5.0	5.8	6.3	7.4	7.2	6.4
Employment Cost Index—compensation:												
Civilian nonfarm[2]	1.3	1.0	1.0	.7	1.3	.9	4.3	4.4	4.3	4.1	4.1	3.9
Private nonfarm	1.5	1.2	.9	.7	1.4	1.0	4.6	4.6	4.6	4.4	4.2	4.0
Union	1.3	1.0	1.2	.5	.7	1.1	3.6	3.9	4.2	4.0	3.4	3.5
Nonunion	1.5	1.2	1.0	.7	1.5	1.0	4.7	4.6	4.7	4.4	4.3	4.2
State and local governments	.6	.3	1.3	.7	.9	.6	3.6	3.5	3.3	3.0	3.3	3.6
Employment Cost Index—wages and salaries:												
Civilian nonfarm[2]	1.1	1.0	1.1	.6	1.1	.9	4.0	4.0	4.0	3.8	3.8	3.7
Private nonfarm	1.2	1.0	1.0	.6	1.2	1.0	4.2	4.1	4.1	3.9	3.8	3.8
Union	.5	.9	1.1	.9	.6	1.1	2.7	2.8	3.2	3.4	3.6	3.8
Nonunion	1.3	1.1	1.0	.6	1.2	.9	4.4	4.3	4.3	4.0	3.9	3.7
State and local governments	.6	.3	1.7	.7	.7	.5	3.8	3.7	3.5	3.3	3.5	3.7

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

[2] Excludes Federal and household workers.

4. Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		2001						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
TOTAL															
Civilian noninstitutional population[1]	207,753	209,699	209,727	209,935	210,161	210,378	210,577	210,743	210,889	211,026	211,171	211,348	211,525	211,725	211,921
Civilian labor force	139,368	140,863	140,546	140,724	140,847	141,000	141,136	141,489	141,955	141,751	141,868	141,757	141,272	141,354	141,774
Participation rate	67.1	67.2	67.0	67.0	67.0	67.0	67.0	67.1	67.3	67.2	67.2	67.1	66.8	66.8	66.9
Employed	133,488	135,208	134,898	134,939	135,310	135,464	135,478	135,836	135,999	135,815	135,780	135,354	135,103	134,932	135,379
Employment-population ratio[2]	64.3	64.5	64.3	64.3	64.4	64.4	64.3	64.5	64.5	64.4	64.3	64.0	63.9	63.7	63.9
Unemployed	5,880	5,655	5,648	5,785	5,537	5,536	5,658	5,653	5,956	5,936	6,088	6,402	6,169	6,422	6,395
Unemployment rate	4.2	4.0	4.0	4.1	3.9	3.9	4.0	4.0	4.2	4.2	4.3	4.5	4.4	4.5	4.5
Not in the labor force	68,385	68,836	69,181	69,211	69,314	69,378	69,441	69,254	68,934	69,275	69,304	69,592	70,254	70,370	70,147
Men, 20 years and over															
Civilian noninstitutional population[1]	91,555	92,580	92,642	92,754	92,863	92,969	93,061	93,117	93,184	93,227	93,285	93,410	93,541	93,616	93,708
Civilian labor force	79,104	70,930	70,782	71,029	71,053	71,155	71,135	71,289	71,492	71,288	71,261	71,575	71,351	71,346	71,555
Participation rate	76.7	76.6	76.4	76.6	76.5	76.5	76.4	76.6	76.7	76.5	76.4	76.6	76.3	76.2	76.4
Employed	67,761	68,580	68,495	68,710	68,728	68,774	68,683	68,848	68,916	68,761	68,534	68,706	68,595	68,466	68,745
Employment-population ratio[2]	74.0	74.1	73.9	74.1	74.0	74.0	73.8	73.9	74.0	73.8	73.5	73.6	73.3	73.1	73.4
Agriculture	2,028	2,252	2,280	2,276	2,350	2,219	2,122	2,232	2,122	2,154	2,150	2,117	2,169	2,035	2,028
Nonagricultural industries	65,517	66,328	66,215	66,434	66,378	66,555	66,561	66,616	66,795	66,607	66,383	66,589	66,426	66,430	66,717
Unemployed	2,433	2,350	2,287	2,319	2,325	2,381	2,452	2,441	2,576	2,527	2,728	2,869	2,756	2,880	2,810
Unemployment rate	3.5	3.3	3.2	3.3	3.3	3.3	3.4	3.4	3.6	3.5	3.8	4.0	3.9	4.0	3.9
Women, 20 years and over															
Civilian noninstitutional population[1]	100,158	101,078	101,111	101,209	101,321	101,448	101,533	101,612	101,643	101,686	101,779	101,870	101,938	102,023	102,067
Civilian labor force	60,840	61,565	61,535	61,265	61,486	61,528	61,625	61,819	62,126	62,220	62,412	62,132	62,119	61,890	62,145
Participation rate	60.7	60.9	60.9	60.5	60.7	60.6	60.7	60.8	61.1	61.2	61.3	61.0	60.9	60.7	60.9
Employed	58,555	59,352	59,273	58,992	59,344	59,425	59,506	59,708	59,894	59,932	60,178	59,741	59,766	59,510	59,752
Employment-population ratio[2]	58.5	58.7	58.6	58.3	58.6	58.6	58.6	58.8	58.9	58.9	59.1	58.6	58.6	58.3	58.5
Agriculture	803	818	797	808	764	748	797	822	852	839	819	847	822	752	773
Nonagricultural industries	57,752	58,535	58,476	58,184	58,580	58,677	58,709	58,886	59,042	59,093	59,359	58,895	58,943	58,759	58,978
Unemployed	2,285	2,212	2,262	2,273	2,142	2,103	2,119	2,111	2,232	2,288	2,233	2,390	2,353	2,380	2,394
Unemployment rate	3.8	3.6	3.7	3.7	3.5	3.4	3.4	3.4	3.6	3.7	3.6	3.8	3.8	3.8	3.9
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	16,040	16,042	15,974	15,972	15,977	15,960	15,983	16,014	16,063	16,113	16,108	16,068	16,046	16,086	16,145
Civilian labor force	8,333	8,369	8,229	8,430	8,308	8,317	8,376	8,381	8,337	8,243	8,195	8,050	7,802	8,118	8,074
Participation rate	52.0	52.2	51.5	52.8	52.0	52.1	52.4	52.3	51.9	51.2	50.9	50.1	48.6	50.5	50.0
Employed	7,172	7,216	7,130	7,237	7,238	7,265	7,289	7,280	7,188	7,122	7,067	6,907	6,742	6,956	6,883
Employment-population ratio[2]	44.7	45.4	44.6	45.3	45.3	45.5	45.6	45.5	44.7	44.2	43.9	43.0	42.0	43.2	42.6
Agriculture	234	235	218	233	242	274	257	220	205	143	191	229	201	209	244
Nonagricultural industries	6,938	7,041	6,912	7,004	6,996	6,991	7,032	7,060	6,983	6,980	6,876	6,678	6,541	6,748	6,638
Unemployed	1,162	1,093	1,099	1,193	1,070	1,052	1,087	1,101	1,149	1,121	1,127	1,143	1,060	1,162	1,191
Unemployment rate	13.9	13.1	13.4	14.2	12.9	12.6	13.0	13.1	13.8	13.6	13.8	14.2	13.6	14.3	14.8
White															
Civilian noninstitutional population[1]	173,085	174,428	174,443	174,587	174,745	174,899	175,034	175,145	175,246	175,362	175,416	175,533	175,653	175,789	175,924
Civilian labor force	116,509	117,574	117,298	117,554	117,553	117,603	117,640	117,945	118,276	118,287	118,243	118,145	117,688	117,773	117,982
Participation rate	67.3	67.4	67.2	67.3	67.3	67.2	67.2	67.3	67.5	67.5	67.4	67.3	67.0	67.0	67.1
Employed	112,235	113,475	113,201	113,378	113,464	113,584	113,509	113,811	114,015	113,902	113,853	113,434	113,185	113,037	113,237
Employment-population ratio[2]	64.8	65.1	64.9	64.9	64.9	64.9	64.8	65.0	65.1	65.0	64.9	64.6	64.4	64.3	64.4
Unemployed	4,273	4,099	4,097	4,176	4,089	4,019	4,131	4,134	4,261	4,385	4,389	4,711	4,503	4,696	4,745
Unemployment rate	3.7	3.5	3.5	3.6	3.5	3.4	3.5	3.5	3.6	3.7	3.7	4.0	3.8	4.0	4.0
Black															
Civilian noninstitutional population[1]	24,855	25,218	25,221	25,258	25,299	25,339	25,376	25,408	25,382	25,412	25,441	25,472	25,501	25,533	25,565
Civilian labor force	16,365	16,603	16,501	16,540	16,489	16,627	16,732	16,742	16,773	16,691	16,789	16,666	16,639	16,756	16,693
Participation rate	65.8	65.8	65.4	65.5	65.2	65.6	65.9	65.9	66.1	65.7	66.0	65.4	65.2	65.6	65.3
Employed	15,056	15,334	15,232	15,239	15,304	15,401	15,485	15,470	15,372	15,440	15,348	15,299	15,311	15,343	15,374
Employment-population ratio[2]	60.6	60.8	60.4	60.3	60.5	60.8	61.0	60.9	60.6	60.8	60.3	60.1	60.0	60.1	60.1
Unemployed	1,309	1,269	1,269	1,301	1,185	1,226	1,247	1,272	1,401	1,251	1,441	1,367	1,328	1,413	1,320
Unemployment rate	8.0	7.6	7.7	7.9	7.2	7.4	7.5	7.6	8.4	7.5	8.6	8.2	8.0	8.4	7.9

See footnotes at end of table.

4. Continued—Employment status of the population, by sex, age, race, and Hispanic origin, monthly data seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Hispanic origin															
Civilian noninstitutional population[1]	21,650	22,393	22,422	22,488	22,555	22,618	22,687	22,749	22,769	22,830	22,889	22,957	23,021	23,090	23,157
Civilian labor force	14,665	15,368	15,243	15,312	15,513	15,491	15,626	15,671	15,540	15,653	15,770	15,775	15,608	15,570	15,788
Participation rate	67.7	68.6	68.0	68.1	68.8	68.5	68.9	68.9	68.1	68.6	68.9	68.7	67.8	67.4	68.2
Employed	13,720	14,492	14,384	14,439	14,647	14,711	14,686	14,772	14,612	14,673	14,782	14,747	14,634	14,538	14,843
Employment-population ratio[2]	63.4	64.7	64.2	64.2	64.9	65.0	64.7	64.9	63.8	64.3	64.6	64.2	63.6	63.0	64.1
Unemployed	945	876	859	873	866	780	940	899	989	980	988	1,028	975	1,032	945
Unemployment rate	6.4	5.7	5.6	5.7	5.6	5.0	6.0	5.7	6.4	6.3	6.3	6.5	6.2	6.6	6.0

[1] The population figures are not seasonally adjusted.

[2] Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals becausedata for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

5. Selected employment indicators, monthly data seasonally adjusted

[In thousands]

Selected categories	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Characteristic															
Employed, 16 years and over	133,488	135,208	134,898	134,939	135,310	135,464	135,478	135,836	135,999	135,815	135,780	135,354	135,103	134,932	135,379
Men	771,446	72,293	72,141	72,379	72,398	72,427	72,354	72,534	72,589	72,359	72,201	72,245	71,978	71,926	72,279
Women	62,042	62,915	62,757	62,560	62,912	63,037	63,124	63,302	63,410	63,456	63,578	63,109	63,125	63,006	63,100
Married men, spouse present	43,254	43,368	43,308	43,375	43,321	43,345	43,251	43,293	43,134	43,340	43,385	43,516	43,733	43,428	43,294
Married women, spouse present	33,450	33,708	33,621	33,507	33,491	33,622	33,633	33,635	34,249	34,059	34,080	33,662	33,686	33,380	33,603
Women who maintain families	8,229	8,387	8,460	8,492	8,516	8,449	8,495	8,501	8,426	8,373	8,049	8,160	8,319	8,529	8,567
Class of worker															
Agriculture:															
Wage and salary workers	1,944	2,034	2,065	2,048	2,018	2,041	2,005	2,019	1,983	1,839	1,910	1,902	1,958	1,775	1,786
Self-employed workers	1,297	1,233	1,189	1,241	1,274	1,182	1,180	1,198	1,182	1,291	1,231	1,223	1,201	1,166	1,256
Unpaid family workers	40	38	39	36	38	32	25	34	25	29	36	47	38	36	22
Nonagricultural industries:															
Wage and salary workers	121,323	123,128	122,744	122,931	123,117	123,461	123,632	123,813	124,035	124,069	123,814	123,395	123,416	123,009	123,432
Government	18,903	19,053	18,592	18,644	19,003	19,073	19,146	19,352	18,843	19,103	19,134	18,854	19,067	18,812	18,919
Private industries	102,420	104,076	104,152	104,287	104,114	104,388	104,486	104,461	105,192	104,966	104,680	104,541	104,349	104,197	104,513
Private households	933	890	821	781	824	812	827	879	859	823	881	812	789	744	790
Other	101,487	103,186	103,331	103,506	103,290	103,576	103,659	103,582	104,333	104,143	103,800	103,729	103,559	103,453	103,723
Self-employed workers	8,790	8,674	8,619	8,618	8,786	8,561	8,533	8,600	8,698	8,617	8,784	8,608	8,530	8,741	8,574
Unpaid family workers	95	101	86	114	108	136	128	121	110	142	138	93	103	94	88
Persons at work part time[1]															
All industries:															
Part time for economic reasons	3,357	3,190	3,110	3,170	33,188	3,222	3,416	3,234	3,327	3,273	3,164	3,201	3,371	3,637	3,466
Slack work or business conditions	1,968	1,927	1,871	1,980	2,051	1,909	2,183	1,964	2,035	2,043	1,914	2,097	2,215	2,299	2,120
Could only find part-time work	1,079	944	918	880	831	947	886	896	954	933	907	873	900	1,025	999
Part time for noneconomic reasons	18,758	18,722	18,579	18,704	18,595	18,758	18,896	18,993	18,568	19,021	18,647	18,713	18,581	18,472	18,845
Nonagricultural industries:															
Part time for economic reasons	3,189	3,045	2,972	3,038	3,030	3,044	3,285	3,088	3,227	3,143	3,007	3,061	3,197	3,532	3,336
Slack work or business conditions	1,861	1,835	1,773	1,901	1,940	1,808	2,082	1,882	1,971	1,970	1,828	1,985	2,089	2,234	2,059
Could only find part-time work	1,056	924	896	861	817	923	871	877	945	910	877	864	876	1,024	985
Part time for noneconomic reasons	18,197	18,165	18,052	18,142	18,024	18,206	18,323	18,437	18,040	18,509	18,132	18,176	18,061	18,039	18,309

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

6. Selected unemployment indicators, monthly data seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		2000							2001					
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Characteristic															
Total, 16 years and over	4.2	4.0	4.0	4.1	3.9	3.9	4.0	4.0	4.2	4.2	4.3	4.5	4.4	4.5	4.5
Both sexes, 16 to 19 years	13.9	13.1	13.4	14.2	12.9	12.6	13.0	13.1	13.8	13.6	13.8	14.2	13.6	14.3	14.8
Men, 20 years and over	3.5	3.3	3.2	3.3	3.3	3.3	3.4	3.4	3.6	3.5	3.8	4.0	3.9	4.0	3.9
Women, 20 years and over	3.8	3.6	3.7	3.7	3.5	3.4	3.4	3.4	3.6	3.7	3.6	3.8	3.8	3.8	3.9
White, total	3.7	3.5	3.5	3.6	3.5	3.4	11.5	3.5	3.6	3.7	3.7	4.0	3.8	4.0	4.0
Both sexes, 16 to 19 years	12.0	11.4	11.5	12.0	11.4	11.2	11.7	11.5	11.7	10.9	11.6	11.8	11.8	12.6	13.3
Men, 16 to 19 years	12.6	12.3	12.5	13.1	12.2	11.8	12.4	12.2	13.3	12.6	11.8	12.8	13.1	14.5	13.7
Women, 16 to 19 years	11.3	10.4	10.4	10.8	10.6	10.5	10.9	10.7	9.8	9.2	11.2	10.8	10.5	10.6	13.0
Men, 20 years and over	3.0	2.8	2.8	2.8	2.9	2.9	3.0	2.9	3.2	3.2	3.3	3.5	3.3	3.6	3.4
Women, 20 years and over	3.3	3.1	3.2	3.3	3.1	3.0	3.0	3.1	3.0	3.3	3.1	3.5	3.4	3.3	3.5
Black, total	8.0	7.6	7.7	7.9	7.2	7.4	7.5	7.6	8.4	7.5	8.6	8.2	8.0	8.4	7.9
Both sexes, 16 to 19 years	27.9	24.7	26.4	26.8	24.1	23.9	21.9	26.7	27.9	28.8	28.9	31.6	25.1	28.2	25.5
Men, 16 to 19 years	30.9	26.4	25.7	31.7	26.7	27.0	22.5	30.1	26.9	31.7	27.7	34.9	30.0	30.7	26.9
Women, 16 to 19 years	25.1	23.0	27.1	22.3	21.7	21.2	21.3	23.4	28.9	25.7	30.2	28.6	20.3	26.0	24.3
Men, 20 years and over	6.7	7.0	6.8	7.2	6.5	7.0	6.9	7.3	6.9	6.6	8.5	8.2	7.6	7.8	7.9
Women, 20 years and over	6.8	6.3	6.3	6.2	5.8	5.8	6.2	5.7	7.3	5.8	6.3	5.5	6.4	6.8	6.0
Hispanic origin, total	6.4	5.7	5.6	5.7	5.6	5.0	6.0	5.7	6.0	6.3	6.3	6.5	6.2	6.6	6.0
Married men, spouse present	2.2	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.5	2.5	2.6	2.6	2.6
Married women, spouse present	2.7	2.7	2.7	2.8	2.7	2.5	2.5	2.6	2.5	2.6	2.7	2.9	2.9	3.0	2.8
Women who maintain families	6.4	5.9	7.7	6.0	5.4	5.4	5.2	5.1	6.4	6.1	6.2	6.3	6.2	6.3	6.2
Full-time workers	4.1	3.9	3.8	3.9	3.8	3.8	3.9	3.9	4.1	4.0	4.2	4.3	4.3	4.4	4.4
Part-time workers	5.0	4.8	5.1	5.0	4.6	4.5	4.5	4.6	4.9	4.8	4.8	5.5	4.6	5.3	5.1
Industry															
Nonagricultural wage and salary workers	4.3	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.3	4.5	4.5	4.6	4.5	4.8	4.7
Mining	5.7	3.9	4.5	4.3	5.0	7.1	3.5	3.6	2.2	4.6	3.5	5.1	5.5	6.8	3.7
Construction	7.0	6.4	6.0	6.4	6.4	6.5	6.9	6.5	6.8	7.0	6.2	7.1	6.6	6.7	6.8
Manufacturing	3.6	3.6	3.6	3.5	3.6	4.0	3.6	3.6	4.2	4.5	5.0	4.6	4.8	5.0	5.1
Durable goods	3.5	3.4	3.3	3.1	3.2	3.8	3.5	3.4	4.2	4.2	5.0	4.3	4.9	5.0	4.7
Nondurable goods	3.9	4.0	4.0	4.1	4.3	4.3	3.9	4.0	4.3	5.0	5.0	5.1	4.7	4.9	5.7
Transportation and public utilities	3.0	3.1	3.1	3.1	3.2	2.8	2.6	3.2	2.8	2.9	3.1	4.1	3.8	4.4	3.3
Wholesale and retail trade	5.2	5.0	5.0	5.1	4.8	4.8	4.7	4.8	5.0	5.1	5.3	5.3	5.3	5.3	5.2
Finance, insurance, and real estate	2.3	2.3	2.2	2.4	2.1	2.3	1.9	2.1	2.3	2.5	2.6	2.7	2.3	2.6	3.2
Services	4.1	3.8	3.9	3.8	3.7	3.6	3.7	3.6	4.0	4.2	4.1	4.1	3.9	4.4	4.3
Government workers	2.2	2.1	2.1	2.3	2.1	2.0	2.3	2.2	2.2	1.5	2.1	2.3	2.0	2.0	2.1
Agricultural wage and salary workers	8.9	7.5	7.2	8.0	7.9	8.8	9.4	8.9	9.0	9.2	11.3	9.2	8.2	9.6	10.9
Educational attainment[1]															
Less than a high school diploma	6.7	6.4	6.4	6.3	6.2	6.4	6.6	6.3	6.8	7.7	6.9	6.6	6.5	6.8	6.6
High school graduates, no college	3.5	3.5	3.4	3.7	3.4	3.5	3.5	3.4	3.8	3.8	3.9	3.8	3.9	3.9	4.1
Some college, less than a bachelor's degree	2.8	2.7	2.7	2.7	2.6	2.4	2.7	2.7	3.0	2.7	2.7	3.0	3.0	3.2	3.0
College graduates	1.8	1.7	1.7	1.7	1.9	1.6	1.6	1.6	1.6	1.6	2.0	2.3	2.1	2.2	2.1

[1] Data refer to persons 25 years and over.

7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Less than 5 weeks	2,568	2,543	2,493	2,567	2,498	2,510	2,531	2,440	2,613	2,797	2,674	2,958	2,679	2,809	2,612
5 to 14 weeks	1,832	1,803	1,811	1,832	1,750	1,755	1,796	1,852	1,977	1,669	1,992	1,977	2,028	2,084	2,150
15 weeks and over	1,480	1,309	1,319	1,373	1,247	1,311	1,317	1,326	1,371	1,490	1,517	1,499	1,484	1,540	1,587
15 to 26 weeks	755	665	650	673	618	702	713	675	731	793	814	759	852	804	935
27 weeks and over	725	644	669	700	629	609	604	651	640	697	703	740	632	737	652
Mean duration, in weeks	13.4	12.6	13.2	13.0	12.1	12.4	12.4	12.6	12.6	12.9	13.0	12.6	12.2	13.0	12.5
Median duration, in weeks	6.4	5.9	5.9	6.1	5.3	6.1	6.1	6.1	5.9	6.0	6.5	5.8	6.5	6.2	6.7

8. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Job losers[1]	2,622	2,492	2,450	2,585	2,502	2,446	2,501	2,514	2,742	2,853	2,963	3,199	3,159	3,291	3,252
On temporary layoff	848	842	857	907	837	825	877	937	1,032	945	991	1,053	1,084	940	1,003
Not on temporary layoff	1,774	1,650	1,593	1,678	1,665	1,621	1,624	1,577	1,711	1,908	1,972	2,146	2,075	2,351	2,249
Job leavers	783	775	788	780	756	815	768	746	838	820	814	749	820	810	774
Reentrants	2,005	1,957	1,960	1,930	1,798	1,868	1,936	1,899	1,956	1,927	1,908	2,005	1,801	1,906	1,912
New entrants	469	431	412	503	429	398	429	466	446	372	382	462	482	477	436
Percent of unemployed															
Job losers[1]	44.6	44.1	43.7	44.6	45.6	44.3	44.4	44.7	45.8	47.8	48.8	49.9	50.4	50.8	51.0
On temporary layoff	14.4	14.9	15.3	15.6	15.3	14.9	15.6	16.7	17.2	15.8	16.3	16.4	17.3	14.5	15.7
Not on temporary layoff	30.2	29.2	28.4	28.9	30.4	29.3	28.8	28.0	28.6	32.0	32.5	33.5	33.1	36.3	35.3
Job leavers	13.3	13.7	14.0	13.5	13.8	14.7	13.6	13.3	14.0	13.7	13.4	11.7	13.1	12.5	12.1
Reentrants	34.1	34.6	34.9	33.3	32.8	33.8	34.4	33.8	32.7	32.3	31.4	31.3	28.8	29.4	30.0
New entrants	8.0	7.6	7.3	8.7	7.8	7.2	7.6	8.3	7.4	6.2	6.4	7.2	7.7	7.4	6.8
Percent of civilian labor force															
Job losers[1]	1.9	1.8	1.7	1.8	1.8	1.7	1.8	1.8	1.9	2.0	2.1	2.3	2.2	2.3	2.3
Job leavers	.6	.6	.6	.6	.5	.6	.5	.5	.6	.6	.6	.5	.6	.6	.5
Reentrants	1.4	1.4	1.4	1.4	1.3	1.3	1.4	1.3	1.4	1.4	1.3	1.4	1.3	1.3	1.3
New entrants	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3

[1] Includes persons who completed temporary jobs.

9. Unemployment rates by sex and age, monthly data seasonally adjusted

[Civilian workers]

Sex and age	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total, 16 years and over	4.2	4.0	4.0	4.1	3.9	3.9	4.0	4.0	4.2	4.2	4.3	4.5	4.4	4.5	4.5
16 to 24 years	9.9	9.3	9.2	9.4	8.9	8.9	9.1	9.2	9.6	9.5	10.0	10.4	9.9	10.4	10.1
16 to 19 years	13.9	13.1	13.4	14.2	12.9	12.6	13.0	13.1	13.8	13.6	13.8	14.2	13.6	14.3	14.8
16 to 17 years	16.3	15.4	16.3	16.9	15.7	15.2	15.4	15.8	17.4	17.2	16.0	16.7	15.5	16.0	19.3
18 to 19 years	12.4	11.5	11.5	12.6	11.1	11.1	11.4	11.6	11.5	11.0	12.3	12.6	12.2	13.1	11.8
20 to 24 years	7.5	7.1	6.9	6.6	6.6	6.8	6.8	7.0	7.2	7.2	7.8	8.3	7.9	8.2	7.5
25 years and over	3.1	3.0	3.0	3.1	3.0	2.9	3.0	3.0	3.2	3.2	3.2	3.4	3.3	3.5	3.4
25 to 54 years	3.2	3.1	3.1	3.2	3.0	3.0	3.0	3.0	3.2	3.2	3.4	3.5	3.5	3.6	3.6
55 years and over	2.8	2.6	2.4	2.7	2.7	2.8	2.9	2.6	2.7	2.8	2.6	2.8	2.6	2.8	2.8
Men, 16 years and over	4.1	3.9	3.8	4.0	3.9	3.9	4.0	4.0	4.3	4.2	4.4	4.6	4.5	4.7	4.5
16 to 24 years	10.3	9.7	9.6	10.2	9.5	9.4	9.5	9.7	10.3	10.8	10.9	10.9	11.0	11.8	10.4
16 to 19 years	14.7	14.0	14.1	15.8	13.7	13.4	13.6	14.1	15.0	15.5	13.8	15.1	15.3	15.9	15.1
16 to 17 years	17.0	16.8	17.5	17.1	17.5	17.6	17.5	18.4	20.5	18.5	15.6	18.7	17.4	18.0	19.0
18 to 19 years	13.1	12.2	12.0	15.2	11.2	10.7	11.3	11.7	11.8	13.1	12.7	12.8	13.9	14.5	13.0
20 to 24 years	7.7	7.3	7.1	6.9	7.1	7.3	7.3	7.2	7.6	8.2	9.3	8.7	8.7	9.5	7.9
25 years and over	3.0	2.8	2.8	2.8	2.8	2.9	3.0	3.0	3.1	3.0	3.2	3.5	3.3	3.4	3.5
25 to 54 years	3.0	2.9	2.8	2.9	2.9	2.9	2.9	2.9	3.1	3.0	3.3	3.5	3.5	3.5	3.6
55 years and over	2.8	2.7	2.4	2.7	2.6	2.8	2.9	2.8	3.0	2.9	2.9	2.9	2.9	3.0	3.0
Women, 16 years and over	4.3	4.1	4.2	4.2	4.0	3.9	4.0	4.0	4.1	4.2	4.2	4.4	4.3	4.4	4.5
16 to 24 years	9.5	8.9	8.9	8.6	8.2	8.4	8.6	8.7	8.8	8.1	8.9	9.8	8.8	8.9	9.7
16 to 19 years	13.2	12.1	12.6	12.4	12.0	11.9	12.3	12.1	12.4	11.6	13.7	13.3	11.8	12.7	14.4
16 to 17 years	15.5	14.0	15.0	16.8	13.8	12.8	13.4	13.2	14.1	15.7	16.4	14.5	13.6	14.0	19.6
18 to 19 years	11.6	10.8	10.9	9.8	11.0	11.6	11.5	11.6	11.3	8.7	11.9	12.4	10.4	11.6	10.6
20 to 24 years	7.2	7.0	6.7	6.3	6.0	6.3	6.3	6.7	6.7	6.1	6.3	7.8	7.1	6.7	7.1
25 years and over	3.3	3.2	3.3	3.4	3.2	3.0	3.1	3.0	3.2	3.4	3.2	3.3	3.4	3.5	3.4
25 to 54 years	3.4	3.3	3.4	3.5	3.2	3.1	3.2	3.1	3.4	3.5	3.5	3.4	3.6	3.8	3.6
55 years and over	2.8	2.6	2.4	2.6	2.8	2.8	2.7	2.4	2.5	2.7	2.2	2.6	2.2	2.5	2.5

10. Unemployment rates by State, seasonally adjusted

State	June 2000	May 2001[P]	June 2001[P]	State	June 2000	May 2001[P]	June 2001[P]
Alabama	4.5	4.7	4.2	Missouri	3.4	3.8	4.2
Alaska	6.8	5.6	5.8	Montana	5.0	4.8	4.3
Arizona	4.0	4.2	4.3	Nebraska	3.1	2.8	2.9
Arkansas	4.5	4.6	4.9	Nevada	3.8	4.4	4.6
California	5.1	4.9	5.1	New Hampshire	3.1	2.8	2.9
Colorado	2.8	2.8	3.1	New Jersey	3.7	4.3	4.5
Connecticut	2.3	2.3	3.0	New Mexico	4.5	5.7	5.7
Delaware	4.1	3.4	3.2	New York	4.5	4.3	4.4
District of Columbia	5.4	4.9	6.4	North Carolina	3.7	5.2	4.9
Florida	3.6	3.9	4.1	North Dakota	3.0	2.3	2.7
Georgia	3.9	3.7	3.6	Ohio	4.1	4.0	4.3
Hawaii	4.1	4.3	4.2	Oklahoma	3.1	2.9	3.1
Idaho	4.8	4.8	4.8	Oregon	4.9	5.6	5.5
Illinois	4.3	5.2	5.2	Pennsylvania	4.2	4.7	4.8
Indiana	3.5	3.1	3.8	Rhode Island	4.2	4.5	5.0
Iowa	2.7	2.8	3.0	South Carolina	4.0	4.4	4.9
Kansas	3.9	3.6	3.8	South Dakota	2.3	2.6	2.6
Kentucky	4.1	4.2	4.5	Tennessee	3.9	4.1	4.2
Louisiana	5.5	5.6	5.3	Texas	4.3	4.5	4.6
Maine	3.6	3.5	3.5	Utah	3.2	4.0	3.6
Maryland	4.0	3.7	3.5	Vermont	2.9	2.9	3.1
Massachusetts	2.7	3.6	3.4	Virginia	2.2	3.0	2.8
Michigan	3.5	5.0	4.9	Washington	5.2	5.5	6.0
Minnesota	3.3	3.9	3.4	West Virginia	5.6	5.3	5.3
Mississippi	6.1	5.0	4.3	Wisconsin	3.7	4.1	4.4
				Wyoming	4.0	3.6	3.8

[P] = preliminary

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted

[In thousands]

State	June 2000	May 2001[P]	June 2001[P]	State	June 2000	May 2001[P]	June 2001[P]
Alabama	1,926.0	1,925.3	1,914.7	Missouri	2,757.1	2,746.3	2,743.8
Alaska	282.4	288.1	289.1	Montana	387.6	393.2	394.8
Arizona	2,241.5	2,276.7	2,270.5	Nebraska	912.2	914.2	911.7
Arkansas	1,162.5	1,165.4	1,164.3	Nevada	1,025.4	1,070.4	1,076.3
California	14,506.7	14,813.4	14,820.7	New Hampshire	621.7	627.0	626.2
Colorado	2,210.7	2,265.2	2,270.1	New Jersey	3,999.0	4,028.2	4,022.5
Connecticut	1,696.4	1,701.8	1,700.4	New Mexico	741.7	754.8	757.5
Delaware	419.7	424.7	423.2	New York	8,633.1	8,729.7	8,722.2
District of Columbia	647.0	651.3	654.6	North Carolina	3,950.5	3,985.4	3,961.1
Florida	7,071.2	7,286.7	7,298.7	North Dakota	328.5	327.7	327.6
Georgia	3,975.6	4,052.0	4,043.3	Ohio	5,639.2	5,641.5	5,646.3
Hawaii	552.0	557.8	560.4	Oklahoma	1,491.0	1,498.3	1,501.3
Idaho	559.1	568.2	570.6	Oregon	1,605.9	1,598.4	1,596.0
Illinois	6,044.1	6,058.5	6,053.8	Pennsylvania	5,690.9	5,732.9	5,729.4
Indiana	3,014.9	2,996.2	2,985.4	Rhode Island	474.8	478.8	479.2
Iowa	1,472.3	1,480.0	1,477.9	South Carolina	1,878.0	1,898.6	1,876.4
Kansas	1,348.8	1,367.0	1,367.5	South Dakota	378.0	381.3	380.9
Kentucky	1,818.3	1,839.0	1,833.5	Tennessee	2,738.5	2,753.9	2,759.9
Louisiana	1,927.5	1,948.7	1,945.2	Texas	9,447.7	9,640.0	9,658.9
Maine	603.6	610.6	610.2	Utah	1,075.2	1,093.4	1,092.9
Maryland	2,455.0	2,475.7	2,474.9	Vermont	298.5	299.9	299.9
Massachusetts	3,320.1	3,365.7	3,368.7	Virginia	3,508.8	3,562.6	3,567.9
Michigan	4,688.0	4,676.5	4,679.5	Washington	2,715.6	2,744.2	2,742.8
Minnesota	2,668.2	2,693.2	2,689.8	West Virginia	734.2	738.2	738.5
Mississippi	1,158.9	1,145.6	1,152.0	Wisconsin	2,838.7	2,843.8	2,838.0
				Wyoming	237.6	243.4	244.9

[P] = preliminary

NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the data base.

12. Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June[p]	July[p]
TOTAL	128,916	131,739	131,899	131,837	132,046	132,145	132,279	132,367	132,428	132,595	132,654	132,489	132,530	132,437	132,444
PRIVATE SECTOR	108,709	111,079	111,180	111,237	111,463	111,564	111,689	111,753	111,799	111,915	111,943	111,742	111,760	111,622	111,521
GOODS-PRODUCING	25,507	25,709	25,774	25,727	25,696	25,713	25,711	25,688	25,633	25,627	25,602	25,421	25,324	25,198	25,125
Mining	539	543	542	543	547	551	548	548	550	555	557	560	564	565	566
Metal mining	44	41	40	40	40	40	40	41	39	39	38	37	37	35	34
Oil and gas extraction	297	311	313	313	316	320	319	320	325	328	331	335	339	340	340
Nonmetallic minerals, except fuels	113	114	113	114	115	115	114	112	111	113	113	113	112	112	113
Construction	6,415	6,698	6,678	6,699	6,728	6,758	6,781	6,791	6,826	6,880	6,929	6,852	6,881	6,864	6,873
General building contractors	1,458	1,528	1,520	1,525	1,538	1,549	1,548	1,543	1,538	1,555	1,552	1,548	1,556	1,551	1,557
Heavy construction, except building	874	901	897	900	900	904	909	913	921	930	938	915	923	925	936
Special trades contractors	4,084	4,269	4,256	4,274	4,290	4,305	4,324	4,335	4,367	4,395	4,439	4,389	4,402	4,388	4,380
Manufacturing	18,552	18,469	18,554	18,485	18,421	18,404	18,382	18,349	18,257	18,192	18,116	18,009	17,879	17,766	17,686
Production workers	12,747	12,628	12,688	12,631	12,559	12,545	12,511	12,466	12,394	12,323	12,254	12,166	12,066	11,963	11,897
Durable goods	11,111	11,138	11,207	11,172	11,129	11,126	11,120	11,102	11,031	10,997	10,941	10,870	10,778	10,695	10,620
Production workers	7,596	7,591	7,635	7,608	7,568	7,560	7,544	7,517	7,462	7,415	7,358	7,308	7,235	7,160	7,096
Lumber and wood products	834	832	836	831	826	821	817	811	806	799	799	800	797	798	797
Furniture and fixtures	548	558	565	559	560	559	557	555	552	549	548	543	540	532	529
Stone, clay, and glass products	566	579	581	580	579	577	577	577	579	578	578	577	574	572	571
Primary metal industries	699	698	700	700	695	695	691	686	681	679	671	667	660	654	648
Fabricated metal products	1,521	1,537	1,546	1,541	1,540	1,536	1,537	1,536	1,526	1,514	1,509	1,503	1,488	1,478	1,475
Industrial machinery and equipment	2,136	2,120	2,137	2,133	2,121	2,123	2,122	2,119	2,117	2,105	2,084	2,072	2,054	2,031	2,006
Computer and office equipment	368	361	362	365	364	365	365	366	369	370	369	367	366	357	353
Electronic and other electrical equipment	1,672	1,719	1,735	1,740	1,736	1,738	1,737	1,738	1,735	1,726	1,715	1,684	1,656	1,624	1,591
Electronic components and accessories	641	682	689	695	698	704	708	710	714	711	702	686	670	650	634
Transportation equipment	1,888	1,849	1,855	1,836	1,822	1,822	1,822	1,817	1,772	1,786	1,775	1,768	1,757	1,749	1,750
Motor vehicles and equipment	1,018	1,013	1,027	1,015	1,005	994	995	990	952	967	956	950	939	931	934
Aircraft and parts	496	465	465	464	464	463	462	464	462	464	465	464	465	465	466
Instruments and related products	855	852	856	856	858	861	865	867	870	871	871	866	865	865	865
Miscellaneous manufacturing industries	391	394	396	396	392	394	395	396	393	390	391	390	387	389	388
Nondurable goods	7,441	7,331	7,347	7,313	7,292	7,278	7,262	7,647	7,226	7,195	7,175	7,139	7,101	7,065	7,066
Production workers	5,150	5,038	5,053	5,023	4,991	4,985	4,967	4,949	4,932	4,908	4,896	4,854	4,831	4,799	4,801
Food and kindred products	1,682	1,684	1,686	1,679	1,674	1,678	1,679	1,682	1,684	1,686	1,687	1,687	1,684	1,685	1,680
Tobacco products	37	34	34	33	33	32	33	32	32	31	32	32	33	33	33
Textile mill products	559	528	530	528	523	518	514	510	505	496	494	489	480	472	471
Apparel and other textile products	690	633	637	625	620	616	611	604	599	595	590	581	579	567	571
Paper and allied products	668	657	656	655	655	655	654	652	651	645	642	641	639	635	632
Printing and publishing	1,552	1,547	1,553	1,549	1,547	1,544	1,540	1,539	1,534	1,529	1,524	1,512	1,502	1,495	1,490
Chemicals and allied products	1,035	1,038	1,036	1,036	1,037	1,038	1,038	1,039	1,039	1,039	1,039	1,036	1,033	1,033	1,038
Petroleum and coal products	132	127	128	128	127	126	127	127	127	127	126	128	127	128	128
Rubber and miscellaneous plastics products	1,006	1,011	1,013	1,009	1,006	1,002	997	993	987	979	973	967	959	953	959
Leather and leather products	77	71	74	71	70	69	69	69	68	68	68	66	65	64	64
SERVICE-PRODUCING	103,409	106,050	106,125	106,110	106,350	106,432	106,568	106,679	106,795	106,968	107,052	107,068	107,206	107,239	107,319
Transportation and public utilities	6,834	7,019	7,034	6,963	7,062	7,076	7,093	7,108	7,106	7,123	7,127	7,119	7,130	7,114	7,113
Transportation	4,411	4,529	4,536	4,548	4,553	4,559	4,573	4,583	4,580	4,591	4,591	4,576	4,584	4,571	4,564
Railroad transportation	235	236	235	236	235	234	235	232	229	231	230	230	230	227	228
Local and interurban passenger transit	478	476	477	478	478	477	478	478	479	480	480	477	483	483	483
Trucking and warehousing	1,810	1,856	1,860	1,860	1,861	1,861	1,864	1,866	1,868	1,870	1,872	1,864	1,867	1,867	1,864
Water transportation	186	196	195	198	199	200	200	200	201	200	201	202	203	201	203
Transportation by air	1,227	1,281	1,282	1,288	1,291	1,298	1,306	1,316	1,312	1,318	1,316	1,313	1,315	1,310	1,305
Pipelines, except natural gas	13	14	14	14	14	14	14	14	14	14	13	14	14	14	14
Transportation services	463	471	473	474	475	475	476	477	477	478	479	476	472	469	467
Communications and public utilities	2,423	2,490	2,498	2,415	2,509	2,517	2,520	2,525	2,526	2,532	2,536	2,543	2,546	2,547	2,549
Communications	1,560	1,639	1,647	1,565	1,660	1,668	1,672	1,678	1,679	1,685	1,690	1,696	1,699	1,700	1,701
Electric, gas, and sanitary services	863	851	851	850	849	849	848	847	847	847	846	847	847	847	848
Wholesale trade	6,911	7,024	7,030	7,037	7,042	7,059	7,070	7,068	7,067	7,064	7,066	7,053	7,038	7,022	7,019
Retail trade	22,848	23,307	23,311	23,348	23,371	23,380	23,395	23,406	23,415	23,472	23,457	23,530	23,546	23,570	23,596
Building materials and garden supplies	988	1,016	1,014	1,015	1,012	1,012	1,011	1,010	1,007	1,007	1,006	999	1,006	1,014	1,008
General merchandise stores	2,798	2,837	2,820	2,830	2,834	2,829	2,835	2,822	2,789	2,807	2,797	2,804	2,821	2,818	2,812
Department stores	2,459	2,491	2,470	2,483	2,487	2,481	2,492	2,480	2,448	2,462	2,451	2,459	2,473	2,471	2,459

See footnotes at end of table.

12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

[In thousands]

Industry	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June[p]	July[p]
Food stores	3,497	3,521	3,523	3,526	3,520	3,528	3,527	3,532	3,538	3,548	3,550	3,562	3,553	3,544	3,537
Automotive dealers and service stations	2,368	2,412	2,412	2,418	2,420	2,426	2,426	2,425	2,424	2,424	2,420	2,421	2,428	2,431	2,435
New and used car dealers	1,080	1,114	1,116	1,118	1,120	1,122	1,123	1,123	1,124	1,124	1,124	1,122	1,126	1,128	1,130
Apparel and accessory stores	1,171	1,193	1,196	1,195	1,202	1,202	1,208	1,214	1,221	1,227	1,228	1,226	1,231	1,227	1,218
Furniture and home furnishings stores	1,087	1,134	1,135	1,138	1,138	1,142	1,144	1,148	1,147	1,146	1,147	1,140	1,136	1,136	1,138
Eating and drinking places	7,961	8,114	8,123	8,132	8,138	8,137	8,142	8,149	8,157	8,171	8,158	8,213	8,216	8,241	8,297
Miscellaneous retail establishments	2,978	3,080	3,088	3,094	3,098	3,105	3,103	3,106	3,132	3,142	3,151	3,165	3,155	3,150	3,151
Finance, insurance, and real estate	7,555	7,560	7,546	7,549	7,556	7,569	7,575	7,582	7,594	7,609	7,618	7,626	7,644	7,631	7,617
Finance	3,688	3,710	3,701	3,707	3,718	3,725	3,729	3,735	3,738	3,748	3,755	3,761	3,770	3,767	3,754
Depository institutions	2,056	2,029	2,024	2,024	2,024	2,023	2,023	2,025	2,024	2,025	2,028	2,032	2,037	2,041	2,040
Commercial banks	1,468	1,430	1,425	1,425	1,524	1,421	1,420	1,420	1,418	1,417	1,418	1,421	1,426	1,428	1,426
Savings institutions	254	253	252	253	253	253	253	253	253	254	254	255	255	256	255
Nondepository institutions	709	681	675	674	677	678	678	677	678	683	686	691	697	699	702
Security and commodity brokers	689	748	751	756	762	767	770	774	777	781	781	780	776	766	755
Holding and other investment offices	234	251	251	253	255	257	248	259	259	259	260	258	260	261	257
Insurance	2,368	2,346	2,340	2,341	2,335	2,337	2,340	2,339	2,346	2,351	2,353	2,356	2,358	2,356	2,357
Insurance carriers	1,610	1,589	1,585	1,585	1,580	1,580	1,583	1,582	1,588	1,592	1,593	1,596	1,598	1,598	1,599
Insurance agents, brokers, and service	758	757	755	756	755	757	757	757	758	759	760	760	760	758	758
Real estate	1,500	1,504	1,495	1,501	1,503	1,507	1,506	1,508	1,510	1,510	1,510	1,509	1,516	1,508	1,506
Services[1]	39,055	40,460	40,495	40,613	40,736	40,767	40,845	40,901	40,984	41,020	41,073	40,993	41,078	41,087	1,051
Agricultural services	766	801	798	801	804	808	811	813	818	821	828	824	834	833	833
Hotels and other lodging places	1,848	1,912	1,923	1,923	1,924	1,927	1,939	1,946	1,952	1,957	1,960	1,944	1,835	1,920	1,923
Personal services	1,226	1,251	1,250	1,256	1,257	1,259	1,261	1,265	1,261	1,261	1,265	1,267	1,277	1,279	1,281
Business services	9,300	9,858	9,884	9,921	9,965	9,939	9,933	9,893	9,888	9,851	9,822	9,729	9,702	9,666	9,599
Services to buildings	983	994	994	994	995	994	998	1,002	1,007	1,007	1,007	1,009	1,013	1,008	1,000
Personnel supply services	3,616	3,887	3,909	3,917	3,947	3,890	3,869	3,816	3,779	3,731	3,694	3,600	3,590	3,556	3,519
Help supply services	3,248	3,487	3,505	3,506	3,547	3,465	3,461	3,404	3,372	3,339	3,201	3,202	3,198	3,161	3,130
Computer and data processing services	1,875	2,095	2,106	2,114	2,124	2,135	2,152	2,164	2,176	2,186	2,195	2,199	2,200	2,205	2,205
Auto repair services and parking	1,196	1,248	1,248	1,254	1,260	1,266	1,270	1,278	1,291	1,291	1,298	1,300	1,309	1,303	1,313
Miscellaneous repair services	372	366	365	366	366	366	366	365	365	365	364	364	363	361	360
Motion pictures	599	594	596	596	590	588	593	597	600	600	605	601	587	602	593
Amusement and recreation services	1,651	1,728	1,735	1,741	1,738	1,747	1,755	1,759	1,769	1,772	1,775	1,764	1,787	1,776	1,773
Health services	10,036	10,197	10,097	10,114	10,131	10,146	10,164	10,184	10,211	10,236	10,259	10,280	10,296	10,329	10,352
Offices and clinics of medical doctors	1,875	1,924	1,923	1,926	1,933	1,938	1,941	1,948	1,953	1,958	1,962	1,967	1,973	1,981	1,982
Nursing and personal care facilities	1,786	1,795	1,793	1,798	1,797	1,799	1,800	1,803	1,806	1,806	1,811	1,816	1,814	1,821	1,823
Hospitals	3,974	3,990	3,988	3,993	4,001	4,005	4,016	4,025	4,035	4,045	4,055	4,062	4,071	4,086	4,097
Home health care services	636	643	645	645	645	646	644	642	646	645	648	646	645	648	648
Legal services	996	1,009	1,010	1,011	1,013	1,014	1,013	1,015	1,017	1,020	1,022	1,021	1,027	1,027	1,026
Educational services	2,267	2,325	2,337	2,352	2,344	2,329	2,338	2,357	2,363	2,375	2,384	2,388	2,431	2,426	2,429
Social services	2,783	2,903	2,883	2,889	2,928	2,950	2,958	2,977	2,985	2,997	3,009	3,023	3,039	3,056	3,055
Child day care services	680	712	715	719	719	724	727	729	732	734	739	743	745	756	764
Residential care	771	806	807	809	813	817	820	823	827	829	831	835	835	845	847
Museums and botanical and zoological gardens	99	106	107	107	107	107	108	108	109	110	110	109	110	111	111
Membership organizations	2,436	2,475	2,466	2,470	2,482	2,482	2,486	2,487	2,487	2,487	2,489	2,489	2,496	2,501	2,488
Engineering and management services	3,256	3,419	3,423	3,440	3,455	3,467	3,478	3,490	3,496	3,504	510	3,517	3,512	3,529	3,538
Engineering and architectural services	957	1,017	1,022	1,026	1,030	1,034	1,035	1,040	1,046	1,050	1,052	1,053	1,057	1,059	1,064
Management and public relations	1,031	1,090	1,090	1,098	1,102	1,108	1,113	1,116	1,119	1,123	1,125	1,124	1,121	1,124	1,121
Government	20,206	20,681	20,719	20,600	20,583	20,581	20,590	20,614	20,629	20,680	20,711	20,747	20,770	20,815	20,923
Federal	2,669	2,777	2,820	2,653	2,623	2,622	2,620	2,613	2,613	2,615	2,613	2,615	2,612	2,621	2,626
Federal, except Postal Service	1,796	1,917	1,957	1,790	1,762	1,762	1,761	1,754	1,755	1,756	1,754	1,756	1,754	1,772	1,772
State	4,709	4,785	4,782	4,794	4,813	4,798	4,798	4,809	4,800	4,825	4,836	4,847	4,854	4,881	4,906
Education	1,983	2,032	2,033	2,037	2,051	2,035	2,033	2,037	2,028	2,048	2,055	2,065	2,066	2,089	2,113
Other State government	2,726	2,753	2,749	2,757	2,762	2,763	2,765	2,772	2,772	2,777	2,781	2,782	2,788	2,792	2,793
Local	12,829	13,119	13,117	13,153	13,147	13,161	13,172	13,192	13,216	13,240	13,262	13,285	13,304	13,334	13,391
Education	7,289	7,440	7,438	7,456	7,439	7,445	7,449	7,457	7,468	7,479	7,492	7,495	7,512	7,515	7,573
Other local government	5,540	5,679	5,679	5,697	5,708	5,716	5,723	5,735	5,748	5,761	5,770	5,790	5,792	5,811	5,818

[1] Includes other industries not shown separately.

[p] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

13. Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls, by industry, monthly data seasonally adjusted

Industrin	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June[P]	July[P]
PRIVATE SECTOR	34.5	34.5	34.4	34.3	34.4	34.4	34.3	34.2	34.4	34.3	34.3	34.2	34.2	34.2	34.1
GOODS-PRODUCING	41.0	41.0	41.1	40.8	40.7	40.8	40.6	40.1	40.5	40.3	40.5	40.6	40.5	40.4	40.5
MINING	43.2	43.1	43.2	43.1	43.0	43.1	43.0	42.5	43.1	43.2	43.8	44.0	43.9	43.3	43.3
MANUFACTURING	41.7	41.6	41.8	41.4	41.4	41.4	41.2	40.6	41.0	40.9	41.0	41.0	40.7	40.7	40.9
Overtime hours	4.6	4.6	4.7	4.5	4.4	4.5	4.3	4.1	4.2	3.9	4.1	3.9	3.9	3.9	4.0
Durable goods	42.2	42.1	42.4	41.9	41.8	41.9	41.6	41.0	41.3	41.1	41.3	41.3	41.0	40.9	41.2
Overtime hours	4.8	4.7	4.8	4.6	4.5	4.6	4.4	4.1	4.1	3.9	4.0	3.9	3.9	3.9	4.0
Lumber and wood products	41.1	41.0	41.0	40.7	40.8	40.9	40.8	40.2	39.8	40.1	40.3	40.1	40.6	40.4	41.1
Furniture and fixtures	40.3	40.0	40.1	39.6	39.7	39.7	39.4	38.8	39.2	39.1	39.1	39.3	38.6	38.4	39.7
Stone, clay, and glass products	43.4	43.1	43.2	43.0	42.9	43.2	43.0	42.3	43.0	42.8	43.7	43.2	43.9	44.0	44.0
Primary metal industries	44.5	44.9	45.2	44.7	44.7	44.4	44.4	43.5	43.8	43.2	43.4	44.3	43.5	43.9	43.9
Blast furnaces and basic steel products	45.2	46.0	46.2	45.9	45.8	45.1	45.2	44.7	44.7	44.4	44.4	45.4	44.6	45.1	44.4
Fabricated metal products	42.4	42.6	43.0	42.3	42.2	42.2	42.1	41.3	41.7	41.7	41.9	42.0	41.4	41.2	41.5
Industrial machinery and equipment	42.1	42.2	42.5	42.1	41.9	42.0	41.7	41.1	41.5	41.0	41.2	41.3	40.7	40.4	40.8
Electronic and other electrical equipment	41.2	41.1	41.5	40.5	40.7	40.7	40.5	40.3	40.3	40.3	40.1	39.8	39.1	39.3	39.0
Transportation equipment	43.8	43.4	43.7	43.2	42.9	43.0	42.5	41.5	42.0	42.0	42.0	42.4	42.4	41.9	42.4
Motor vehicles and equipment	45.0	44.4	44.5	44.3	43.8	43.9	43.2	41.5	42.1	42.0	42.3	43.3	43.6	43.0	43.4
Instruments and related products	41.3	41.3	41.6	40.9	41.1	41.2	41.2	40.7	41.0	41.1	41.0	41.0	41.0	40.8	40.8
Miscellaneous manufacturing	39.8	39.0	39.3	38.7	38.5	38.6	38.4	38.1	38.3	38.2	38.2	38.2	37.9	38.4	38.5
Nondurable goods	40.9	40.8	41.0	40.7	40.7	40.6	40.5	40.1	40.6	40.4	40.5	40.5	40.3	40.4	40.4
Overtime hours	4.4	4.4	4.5	4.4	4.3	4.3	4.2	4.1	4.3	4.0	4.1	3.9	4.0	3.9	4.0
Food and kindred products	41.8	41.7	41.8	41.8	41.6	41.5	41.4	40.9	41.3	41.1	41.2	41.3	41.1	41.2	40.9
Textile mill products	40.9	41.2	41.6	40.8	40.8	40.6	40.5	40.5	40.7	40.4	40.5	40.3	40.3	40.4	39.9
Apparel and other textile products	37.5	37.8	38.1	37.7	37.6	37.5	37.6	37.2	37.6	37.6	37.5	38.0	37.8	37.5	37.8
Paper and allied products	43.4	42.5	42.6	42.5	42.4	42.3	42.2	41.7	41.9	41.7	41.8	42.0	41.6	41.7	41.7
Printing and publishing	38.1	38.3	38.4	38.1	38.2	38.2	38.2	37.O	38.4	38.4	38.6	38.2	38.0	38.0	38.4
Chemicals and allied products	43.0	42.5	42.7	42.3	42.4	42.3	42.1	42.1	42.6	42.3	42.3	42.6	42.4	42.2	42.7
Rubber and miscellaneous plastics products	41.7	41.4	41.5	41.3	41.3	41.2	41.0	40.4	41.0	40.9	41.0	40.8	40.6	40.7	40.7
Leather and leather products	37.4	37.5	37.6	37.4	37.3	37.4	37.3	36.8	36.9	36.4	36.1	36.6	35.9	36.2	35.5
SERVICE-PRODUCING	32.8	32.8	32.8	32.7	32.8	32.8	32.8	32.7	32.9	32.8	32.8	32.7	32.7	32.8	32.6
TRANSPORTATION AND PUBLIC UTILITIES	38.7	38.6	38.5	38.4	38.5	38.6	38.6	38.7	38.7	38.5	38.3	38.1	38.1	38.1	38.0
WHOLESALE TRADE	38.3	38.5	38.5	38.3	38.4	38.4	38.4	38.3	38.3	38.1	38.3	38.2	38.2	38.3	38.3
RETAIL TRADE	29.0	28.9	28.9	28.9	28.8	28.9	28.9	28.7	29.1	28.9	28.8	28.8	28.8	28.6	28.6

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

14. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry, seasonally adjusted

Industry	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June[P]	July[P]
PRIVATE SECTOR (in current dollars)	$13.24	$13.75	$13.75	$13.80	$13.84	$13.90	$13.97	$14.03	$14.03	$14.11	$14.17	$14.21	$14.24	$14.31	$14.34
Goods-producing	14.83	15.40	15.38	15.45	15.47	15.57	15.63	15.65	15.67	15.74	15.79	15.78	15.86	15.91	–
Mining	17.05	17.24	17.29	17.25	17.24	17.30	17.38	17.43	17.49	17.52	17.55	17.53	17.54	17.76	17.76
Construction	17.19	17.88	17.86	17.93	17.97	18.02	18.16	18.17	18.28	18.30	18.33	18.15	18.22	18.29	18.25
Manufacturing	13.90	14.38	14.37	14.43	14.44	14.54	14.57	14.58	14.54	14.63	14.66	14.72	14.78	14.81	–
Excluding overtime	13.17	13.62	13.62	13.69	13.73	13.80	13.84	13.88	13.83	13.94	13.96	14.04	14.09	14.13	14.18
Service-producing	12.73	13.24	13.24	13.29	13.34	13.39	13.46	13.53	13.54	13.62	13.68	13.73	13.76	13.84	13.86
Transportation and public utilities	15.69	16.22	16.18	16.27	16.31	16.39	16.42	16.50	16.51	16.64	16.68	16.74	16.76	16.89	16.87
Wholesale trade	14.59	15.20	15.24	15.25	15.33	15.37	15.44	15.55	15.53	15.60	15.68	15.74	15.70	15.84	15.82
Retail trade	9.09	9.46	9.47	9.50	9.54	9.57	9.61	9.65	9.64	9.69	9.72	9.74	9.79	9.83	9.84
Finance, insurance, and real estate	14.62	15.07	15.07	15.13	15.19	15.20	15.28	15.35	15.44	15.55	15.61	15.64	15.74	15.84	15.91
Services	13.37	13.91	13.92	13.97	14.01	14.07	14.16	14.23	14.25	14.35	14.40	14.48	14.49	14.55	14.45
PRIVATE SECTOR (in constant (1982) dollars)	7.86	7.89	7.87	7.90	7.88	7.90	7.92	7.94	7.90	7.92	7.95	7.94	7.93	7.95	8.00

[P] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

15. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June[p]	July[p]
PRIVATE SECTOR	$13.24	$13.75	$13.69	$13.68	$13.89	$13.97	$13.99	$14.04	$14.10	$14.16	$14.19	$14.27	$14.22	$14.22	$14.27
MINING	17.05	17.24	17.21	17.13	17.16	17.28	17.32	17.54	17.67	17.61	17.57	17.60	17.49	17.62	17.69
CONSTRUCTION	17.19	17.88	17.92	18.05	18.17	18.22	18.20	18.23	18.17	18.16	18.30	18.07	18.17	18.22	18.31
MANUFACTURING	13.90	14.38	14.35	14.36	14.51	14.53	14.60	14.67	14.59	14.61	14.65	14.74	14.75	14.79	14.85
Durable goods	14.36	14.82	14.74	14.81	14.96	14.99	15.05	15.11	14.98	15.03	15.09	15.14	15.19	15.24	15.27
Lumber and wood products	11.51	11.93	11.99	12.01	12.07	12.09	12.07	12.12	12.13	12.08	12.08	12.13	12.16	12.19	12.32
Furniture and fixtures	11.29	11.73	11.76	11.83	11.88	11.86	11.90	11.93	11.92	12.03	12.04	12.07	12.09	12.15	12.27
Stone, clay, and glass products	13.97	14.53	14.58	14.65	14.77	14.75	14.76	14.72	14.65	14.68	14.79	14.96	15.03	15.14	15.14
Primary metal industries	15.80	16.42	16.67	16.49	16.54	16.48	16.58	16.65	16.66	16.58	16.63	16.90	16.82	16.96	17.13
Blast furnaces and basic steel products	18.84	19.82	20.35	19.97	19.83	19.84	19.71	19.88	20.16	20.05	20.00	20.37	20.26	20.42	20.60
Fabricated metal products	13.50	13.87	13.83	13.85	13.99	14.01	14.03	14.09	13.99	14.03	14.08	14.11	14.23	14.26	14.24
Industrial machinery and equipment	15.03	15.55	15.57	15.61	15.69	15.66	15.67	15.81	15.73	15.74	15.77	15.74	15.79	15.81	15.91
Electronic and other electrical equipment	13.43	13.80	13.77	13.76	13.91	14.00	14.04	14.17	14.07	14.16	14.26	14.39	14.38	14.49	14.61
Transportation equipment	17.79	18.45	18.02	18.37	18.77	18.88	19.05	19.00	18.57	18.68	18.76	18.77	18.83	18.90	18.83
Motor vehicles and equipment	18.10	18.79	18.22	18.68	19.12	19.26	19.43	19.31	18.77	18.91	19.02	19.13	19.18	19.25	19.09
Instruments and related products	14.08	14.43	14.46	14.44	14.58	14.62	14.64	14.80	14.64	14.60	14.73	14.80	14.75	14.81	14.99
Miscellaneous manufacturing	11.26	11.63	11.57	11.56	11.66	11.75	11.82	11.94	11.98	11.98	12.05	12.04	12.10	12.05	12.12
Nondurable goods	13.21	13.69	13.75	13.68	13.80	13.81	13.89	13.97	12.97	13.97	13.97	14.12	14.07	14.12	14.22
Food and kindred products	12.11	12.50	12.54	12.49	12.59	12.59	12.69	12.71	12.70	12.65	12.68	12.79	12.83	12.87	12.95
Tobacco products	19.87	21.57	22.90	22.60	22.13	22.47	21.85	21.76	21.34	21.49	22.63	22.59	23.01	23.21	23.63
Textile mill products	10.81	11.16	11.18	11.21	11.30	11.23	11.27	11.27	11.32	11.27	11.31	11.30	11.29	11.32	11.38
Apparel and other textile products	8.92	9.30	9.29	9.29	9.36	9.37	9.33	9.37	9.39	9.36	9.46	9.44	9.39	9.44	9.42
Paper and allied products	15.88	16.25	16.36	16.27	16.37	16.43	16.50	16.61	16.53	16.54	16.56	16.74	16.72	16.90	16.95
Printing and publishing	13.96	14.40	14.41	14.39	14.56	14.50	14.56	14.66	14.59	14.64	14.69	14.75	14.75	14.76	14.82
Chemicals and allied products	17.42	18.15	18.33	18.21	18.32	18.27	18.35	18.47	18.34	18.41	18.33	18.64	18.52	18.55	18.70
Petroleum and coal products	21.43	22.00	21.93	21.78	22.06	22.14	22.23	22.31	22.10	22.21	21.83	22.09	21.83	21.79	21.95
Rubber and miscellaneous plastics products	12.40	12.85	12.88	12.87	12.96	12.98	13.10	13.20	13.24	13.31	13.19	13.33	13.30	13.30	13.40
Leather and leather products	9.71	10.18	10.13	10.24	10.31	10.33	10.32	10.37	10.51	10.35	10.46	10.37	10.26	10.35	10.23
TRANSPORTATION AND PUBLIC UTILITIES	15.69	16.22	16.19	16.22	16.31	16.38	16.43	16.53	16.56	16.68	16.65	16.78	16.70	16.81	16.88
WHOLESALE TRADE	14.59	15.20	15.27	15.19	15.33	15.45	15.45	15.58	15.56	15.62	15.58	15.86	15.66	15.75	15.86
RETAIL TRADE	9.09	9.46	9.40	9.41	9.58	9.59	9.61	9.65	9.69	9.72	9.74	9.78	9.78	9.77	9.77
FINANCE, INSURANCE, AND REAL ESTATE	14.62	15.07	15.01	14.99	15.11	15.24	15.25	15.32	15.45	15.63	15.67	15.81	15.74	15.73	15.85
SERVICES	13.37	13.91	13.78	13.74	14.00	14.11	14.20	14.33	14.39	14.47	14.48	14.58	14.46	14.40	14.45

[p] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

16. Average weekly earnings of production or nonsupervisory workers on private nonfarm payrolls, by industry

Industry	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June[p]	July[p]
PRIVATE SECTOR															
Current dollars	$456.78	$474.38	$477.78	$474.70	$479.21	$484.76	$479.86	$480.17	$477.99	$481.44	$482.46	$486.61	$484.90	$489.17	$493.74
Seasonally adjusted	–	–	473.00	473.34	476.10	478.16	479.17	479.83	482.63	483.97	486.03	485.98	487.01	489.40	493.74
Constant (1982) dollars	271.25	272.16	273.33	271.72	272.43	275.28	272.03	272.51	269.74	270.62	270.89	271.70	269.39	271.46	275.22
MINING	736.56	743.04	748.64	746.87	751.61	756.86	743.03	747.20	750.98	751.95	757.27	765.60	769.56	769.99	773.05
CONSTRUCTION	672.13	702.68	716.80	725.61	728.62	732.44	704.34	694.56	692.28	682.82	702.52	695.70	728.62	726.98	739.72
MANUFACTURING															
Current dollars	579.63	598.21	592.66	594.50	606.52	604.45	607.36	607.34	596.73	591.71	597.72	588.13	600.33	603.43	599.94
Constant (1982) dollars	344.20	343.21	339.05	340.30	344.81	343.24	344.31	344.69	336.76	332.61	335.61	328.38	333.52	334.87	334.41
Durable goods Durable goods	605.99	623.92	614.66	620.54	632.81	631.08	633.61	630.09	615.68	613.22	620.20	607.11	624.31	626.36	619.96
Lumber and wood products	473.06	489.13	489.19	494.02	496.08	499.32	494.87	486.01	477.92	473.54	483.20	483.99	497.34	497.35	502.66
Furniture and fixtures	454.99	469.20	466.87	473.20	481.14	474.40	474.81	476.01	464.88	461.95	467.15	457.45	462.22	467.78	482.21
Stone, clay, and glass products	606.30	626.24	634.23	641.67	646.93	647.53	637.63	624.13	613.84	610.69	631.53	638.79	665.83	672.22	670.70
Primary metal industries	703.10	737.26	741.82	733.81	742.65	731.71	746.10	735.93	731.37	716.26	718.42	730.08	731.67	742.85	740.02
Blast furnaces and basic steel products	851.57	911.72	944.24	916.62	908.21	890.82	902.72	890.62	901.15	882.20	884.00	920.72	899.54	920.94	918.76
Fabricated metal products	572.40	590.86	583.63	585.86	598.77	596.83	597.68	596.01	581.98	580.84	585.73	567.22	589.12	588.94	579.57
Industrial machinery and equipment	632.76	656.21	653.94	652.50	658.98	656.15	658.14	662.44	655.94	648.49	651.30	628.03	644.23	640.31	641.17
Electronic and other electrical equipment	553.32	567.18	561.82	558.66	573.09	575.00	575.64	585.22	567.02	566.40	568.97	554.02	559.38	569.46	561.02
Transportation equipment	779.20	800.73	758.64	789.91	822.13	819.39	821.06	807.50	772.51	775.22	789.80	765.82	804.04	799.47	770.15
Motor vehicles and equipment	814.50	834.28	772.53	823.79	860.40	857.07	852.98	826.47	778.96	786.66	808.35	791.98	840.08	837.38	790.33
Instruments and related products	581.50	595.96	595.75	587.71	597.78	602.34	607.56	621.72	603.17	605.90	605.40	594.96	602.48	602.77	605.60
Miscellaneous manufacturing	488.15	453.57	446.60	448.53	455.91	457.08	457.43	460.88	454.04	454.04	461.52	450.30	458.59	462.72	459.35
Nondurable goods	540.29	558.55	559.63	556.78	567.18	564.83	569.49	569.98	565.79	560.20	561.59	559.15	564.21	569.04	570.22
Food and kindred products	506.20	521.25	524.17	525.83	535.08	528.78	534.25	528.74	520.70	509.80	513.54	510.32	522.18	528.96	529.66
Tobacco products	763.01	877.90	964.09	942.42	927.25	878.12	895.85	892.16	832.26	831.66	893.89	885.53	906.59	956.25	952.29
Textile mill products	442.13	459.79	458.38	458.49	465.56	457.06	460.94	462.07	459.59	449.67	458.06	444.09	454.99	459.59	447.23
Apparel and other textile products	334.50	351.54	349.30	351.16	352.87	352.31	352.67	353.25	349.31	352.87	355.70	346.45	355.88	356.83	351.37
Paper and allied products	689.19	690.63	693.66	688.22	699.00	699.92	706.20	705.93	697.57	683.10	687.24	688.01	690.54	701.35	703.43
Printing and publishing	531.88	551.52	550.46	549.70	562.02	558.25	564.93	564.41	555.88	557.78	565.57	554.60	556.08	557.93	566.12
Chemicals and allied products	749.06	771.38	775.36	766.64	776.77	772.82	778.04	788.67	781.28	778.74	773.53	790.34	783.40	780.96	791.01
Petroleum and coal products	908.63	932.80	925.45	886.45	930.93	952.02	955.89	952.64	987.87	957.25	936.51	965.33	910.31	932.61	948.24
Rubber and miscellaneous plastics products	517.08	531.99	525.50	528.96	540.43	537.37	539.72	543.84	544.16	543.05	538.15	529.20	539.98	543.97	537.34
Leather and leather products	363.15	381.75	375.82	389.12	390.75	389.44	390.10	382.65	384.67	373.64	375.51	369.17	370.39	379.85	358.05
TRANSPORTATION AND PUBLIC UTILITIES	607.20	626.09	634.65	627.71	631.20	638.82	632.56	638.06	632.59	637.18	362.70	641.00	632.93	642.14	653.26
WHOLESALE TRADE	558.80	585.20	592.48	581.78	588.67	597.92	593.28	596.71	589.72	590.44	592.04	607.44	598.59	601.65	612.20
RETAIL TRADE	263.61	273.39	280.12	277.60	275.90	277.15	274.85	278.89	273.26	276.05	276.62	281.66	280.69	284.60	288.22
FINANCE, INSURANCE, AND REAL ESTATE	529.24	547.04	550.87	539.64	545.47	557.78	549.00	553.05	556.20	567.37	564.12	580.23	565.78	569.43	581.70
SERVICES	435.86	454.86	456.12	452.05	455.00	464.22	462.92	467.16	464.80	471.72	472.05	476.77	469.95	472.32	476.85

[p] = preliminary.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available

17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.
	Private nonfarm payrolls, 356 industries											
Over 1-month span:												
1998	63.2	56.2	59.3	60.2	58.9	57.1	55.4	58.4	54.8	55.0	58.2	56.4
1999	55.1	59.6	52.8	57.2	58.2	54.2	57.1	54.4	55.2	57.9	59.9	56.8
2000	55.7	59.3	61.0	54.2	47.7	60.5	57.8	55.1	52.0	54.8	55.1	54.2
2001	53.7	50.4	55.8	45.0	46.6	44.9	47.0	–	–	–	–	–
Over 3-month span:												
1998	65.3	66.1	64.6	65.7	62.2	57.9	57.5	58.4	59.1	59.2	59.3	59.2
1999	60.8	57.8	58.5	55.8	58.1	57.9	57.2	59.2	59.8	59.1	61.0	60.6
2000	61.6	63.3	61.9	56.2	55.1	57.9	61.5	56.4	54.1	53.3	55.7	53.3
2001	51.7	54.1	48.6	49.2	43.1	44.6	–	–	–	–	–	–
Over 6-month span:												
1998	70.4	67.4	65.0	62.5	63.6	60.5	59.2	58.6	57.9	59.6	60.6	59.9
1999	59.8	59.8	58.2	60.3	56.7	59.2	61.8	60.8	62.2	61.2	62.3	64.9
2000	63.5	60.6	62.6	63.7	61.5	55.5	56.1	58.6	54.2	54.8	51.8	54.2
2001	52.0	50.6	48.0	46.6	–	–	–	–	–	–	–	–
Over 12-month span:												
1998	69.7	67.6	67.4	66.0	64.0	62.7	61.9	62.0	60.9	59.3	60.8	58.8
1999	61.2	60.2	58.2	60.8	60.8	61.6	62.2	61.3	63.9	63.0	61.3	60.9
2000	62.5	63.0	61.8	59.5	58.4	56.8	55.7	56.5	54.2	53.4	53.0	51.8
2001	50.0	–	–	–	–	–	–	–	–	–	–	–
	Manufacturing payrolls, 139 industries											
Over 1-month span:												
1998	57.4	51.5	53.7	53.3	43.8	48.2	38.2	51.5	41.9	41.5	41.2	43.4
1999	46.9	44.5	43.0	42.3	50.4	39.3	51.5	39.3	45.2	46.3	53.3	46.7
2000	44.9	56.6	55.5	46.7	41.2	54.8	53.7	38.6	34.6	41.5	43.8	44.1
2001	37.9	32.4	41.5	31.3	29.4	33.1	39.7	–	–	–	–	–
Over 3-month span:												
1998	59.6	59.6	55.9	50.4	46.7	37.9	41.5	41.5	41.9	38.2	36.8	40.8
1999	41.2	39.0	38.2	41.8	40.8	45.2	39.0	45.2	40.8	44.9	46.3	46.0
2000	50.0	54.0	52.9	42.3	43.0	48.5	48.2	33.6	28.7	30.5	39.0	35.7
2001	28.3	29.4	24.6	26.5	22.1	26.1	–	–	–	–	–	–
Over 6-month span:												
1998	63.2	54.4	50.4	40.4	44.5	40.1	37.5	36.4	34.9	40.1	37.1	34.2
1999	36.0	38.2	37.5	41.2	36.8	39.7	43.0	41.5	46.0	40.4	46.3	51.5
2000	51.5	44.5	48.5	55.1	43.8	34.9	33.5	34.6	30.1	29.4	25.0	27.9
2001	26.8	25.4	19.9	21.0	–	–	–	–	–	–	–	–
Over 12-month span:												
1998	54.8	52.2	51.8	46.7	40.4	40.1	38.2	37.5	36.4	34.6	35.7	34.2
1999	38.6	34.6	32.4	36.0	37.9	39.0	40.1	40.4	44.5	46.0	44.9	44.5
2000	46.3	45.2	41.2	37.9	33.8	31.3	31.3	31.3	27.6	25.4	24.3	21.3
2001	20.6	–	–	–	–	–	–	–	–	–	–	–

Dash indicates data not available.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment. Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

18. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1992	1993	1994	1995	1996	1997	1998	1999	2000
Civilian noninstitutional population	192,805	194,838	196,814	198,584	200,591	203,133	205,220	207,753	209,699
Civilian labor force	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368	140,863
Labor force participation rate	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.2
Employed	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488	135,208
Employment-population ratio	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.5
Agriculture	3,247	3,115	3,409	3,440	3,443	3,399	3,378	3,281	3,305
Nonagricultural industries	115,245	117,144	119,651	121,460	123,264	126,159	128,085	130,207	131,903
Unemployed	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,655
Unemployment rate	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0
Not in the labor force	64,700	65,638	65,758	66,280	66,647	66,837	67,547	68,385	68,836

19. Annual data: Employment levels by industry

[In thousands]

Industry	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total employment	108,601	110,713	114,163	117,191	119,608	122,690	125,865	128,916	131,759
Private sector	89,956	91,872	95,036	97,885	100,189	103,133	106,042	108,709	111,079
Goods-producing	23,231	23,352	23,908	24,265	24,493	24,962	25,414	25,507	25,709
Mining	635	610	601	581	580	596	590	539	543
Construction	4,492	4,668	4,986	5,160	5,418	5,691	6,020	6,415	6,698
Manufacturing	18,104	18,075	18,321	18,524	18,495	18,675	18,805	18,552	18,469
Service-producing	85,370	87,361	90,256	92,925	95,115	97,727	100,451	103,409	106,050
Transportation and public utilities	5,718	5,811	5,984	6,132	6,253	6,408	6,611	6,834	7,019
Wholesale trade	5,997	5,981	6,162	6,378	6,482	6,648	6,800	6,911	7,024
Retail trade	19,356	19,773	20,507	21,187	21,597	21,966	22,295	22,848	23,307
Finance, insurance, and real estate	6,602	6,757	6,896	6,806	6,911	7,109	7,389	7,555	7,560
Services	29,052	30,197	31,579	33,117	34,454	36,040	37,533	39,055	40,460
Government	18,645	18,841	19,128	19,305	19,419	19,557	19,823	20,206	20,681
Federal	2,969	2,915	2,870	2,822	2,757	2,699	2,686	2,669	2,777
State	4,408	4,488	4,576	4,635	4,606	4,582	4,612	4,709	4,785
Local	11,267	11,438	11,682	11,849	12,056	12,276	12,525	12,829	13,119

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

20. Annual data: Average hours and earnings of production or nonsupervisory workers on nonfarm payrolls, by industry

Industry	1992	1993	1994	1995	1996	1997	1998	1999	2000
Private sector:									
Average weekly hours	34.4	34.5	34.7	34.5	34.4	34.6	34.6	34.5	34.5
Average hourly earnings (in dollars)	10.57	10.83	11.12	11.43	11.82	12.28	12.78	13.24	13.75
Average weekly earnings (in dollars)	363.61	373.64	385.86	394.34	406.61	424.89	442.19	456.78	474.38
Mining:									
Average weekly hours	43.9	44.3	44.8	44.7	45.3	45.4	43.9	43.2	43.1
Average hourly earnings (in dollars)	14.54	14.60	14.88	15.30	15.62	16.15	16.91	17.05	17.24
Average weekly earnings (in dollars)	638.31	646.78	666.62	683.91	707.59	733.21	742.35	736.56	743.04
Construction:									
Average weekly hours	38.0	38.5	38.9	38.9	39.0	39.0	38.9	39.1	39.3
Average hourly earnings (in dollars)	14.15	14.38	14.73	15.09	15.47	16.04	16.61	17.19	17.88
Average weekly earnings (in dollars)	537.70	553.63	573.00	587.00	603.33	625.56	646.13	672.13	702.68
Manufacturing:									
Average weekly hours	41 0	41.4	42.0	41.6	41.6	42.0	41.7	41.7	41.6
Average hourly earnings (in dollars)	11.46	11.74	12.07	12.37	12.77	13.17	13.49	13.90	14.38
Average weekly earnings (in dollars)	469.86	486.04	506.94	514.59	531.23	553.14	562.53	579.63	598.21
Transportation and public utilities:									
Average weekly hours	38.3	39.3	39.7	39.4	39.6	39.7	39.5	38.7	38.6
Average hourly earnings (in dollars)	13.43	13.55	13.78	14.13	14.45	14.92	15.31	15.69	16.22
Average weekly earnings (in dollars)	514.37	532.52	547.07	556.72	572.22	592.32	604.75	607.20	626.09
Wholesale trade:									
Average weekly hours	38.2	38.2	38.4	38.3	38.3	38.4	38.3	38.3	38.5
Average hourly earnings (in dollars)	11.39	11.74	12.06	12.43	12.87	13.45	14.07	14.58	15.20
Average weekly earnings (in dollars)	435.10	448.47	463.10	476.07	492.92	516.48	538.88	558.80	585.20
Retail trade:									
Average weekly hours	28.8	28.8	28.9	28.8	28.8	28.9	29.0	29.0	28.9
Average hourly earnings (in dollars)	7.12	7.29	7.49	7.69	7.99	8.33	8.74	9.09	9.46
Average weekly earnings (in dollars)	205.06	209.95	216.46	221.47	230.11	240.74	253.46	263.61	273.39
Finance, insurance, and real estate:									
Average weekly hours	35.8	35.8	35.8	35.9	35.9	36.1	36.4	36.2	36.3
Average hourly earnings (in dollars)	10.82	11.35	11.83	12.32	12.80	13.34	14.07	14.62	15.07
Average weekly earnings (in dollars)	387.36	406.33	423.51	442.29	459.52	481.57	512.15	529.24	547.04
Services:									
Average weekly hours	32.5	32.5	32.5	32.4	32.4	32.6	32.6	32.6	32.7
Average hourly earnings (in dollars)	10.54	10.78	11.04	11.39	11.79	12.28	12.84	13.37	13.91
Average weekly earnings (in dollars)	342.55	350.35	358.80	369.04	382.00	400.33	418.58	435.86	454.86

21. Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1999			2000				2001		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2001	
Civilian workers[2]	141.8	143.3	144.6	146.5	148.0	149.5	150.6	152.5	153.8	0.9	3.9
Workers, by occupational group:											
White-collar workers	143.3	145.0	146.3	148.4	149.9	151.5	152.5	154.4	156.0	1.0	4,1
Professional specialty and technical	142.2	143.9	145.3	146.7	148.3	150.0	151.3	153.2	154.3	.7	4.0
Executive, administrative, and managerial	145.4	147.3	148.6	150.5	151.9	153.7	154.6	156.6	158.6	1.3	4.4
Administrative support, including clerical	143.4	144.7	146.1	148.6	150.1	151.8	152.8	155.3	156.8	1.0	4.5
Blue-collar workers	138.3	139.5	140.6	142.7	144.1	145.6	146.5	148.2	149.3	.7	3.6
Service occupations	142.4	143.1	144.8	146.0	147.1	148.5	150.0	152.0	153.3	.9	4.2
Workers, by industry division:											
Goods-producing	140.0	141.2	142.5	144.9	146.6	148.0	148.8	150.7	152.2	1.0	3.8
Manufacturing	140.9	142.1	143.6	146.0	147.5	148.7	149.3	151.3	2.6154.4	.9	3.5
Service-producing	142.4	144.0	145.3	147.1	148.4	150.1	151.1	153.0	155.4	.9	4.0
Services	143.2	145.1	146.5	148.0	149.3	151.2	152.4	154.3	154.6	.7	4.1
Health services	141.4	142.7	144.3	145.9	147.5	149.0	150.7	152.5	155.6	1.4	4.8
Hospitals	142.2	143.4	145.0	146.3	147.7	149.5	151.3	153.2	152.2	1.6	5.3
Educational services	141.7	144.6	145.8	146.5	146.8	149.7	150.6	151.7	151.9	.3	3.7
Public administration[3]	141.5	142.4	144.4	145.7	146.1	146.9	148.3	150.6	154.0	.9	4.0
Nonmanufacturing	141.9	143.4	144.7	146.6	148.0	149.6	150.7	152.6	154.0	.9	4.1
Private industry workers	142.0	143.3	144.6	146.8	148.5	149.9	150.9	153.0	154.5	1.0	4.0
Excluding sales occupations	141.9	143.2	144.5	146.5	148.2	149.8	150.9	153.0	154.4	.9	4.2
Workers, by occupational group:											
White-collar workers	144.1	145.6	146.9	149.3	151.1	152.6	153.6	155.7	157.4	1.1	4.2
Excluding sales occupations	144.5	146.0	147.3	149.4	151.3	152.9	154.1	156.5	158.1	1.0	4.5
Professional specialty and technical occupations	144.1	145.2	146.7	148.4	150.7	152.2	153.7	156.3	157.5	.8	4.5
Executive, administrative, and managerial occupations	145.8	147.7	149.1	151.1	152.7	154.4	155.3	157.3	159.4	1.3	4.4
Sales occupations	142.6	144.1	145.3	148.9	150.3	151.2	151.4	152.3	154.5	1.4	2.8
Administrative support occupations, including clerical	143.7	145.0	146.2	149.0	150.6	152.3	153.4	156.1	157.7	1.0	4.7
Blue-collar workers	138.2	139.4	140.5	142.6	144.1	145.5	146.4	148.2	149.3	.7	3.6
Precision production, craft, and repair occupations	138.4	139.6	140.6	142.3	144.1	145.8	146.7	148.7	149.7	.7	3.9
Machine operators, assemblers, and inspectors	138.4	139.9	141.4	144.0	145.0	146.0	146.8	148.3	149.1	.5	2.8
Transportation and material moving occupations	133.6	134.4	135.2	137.5	138.6	139.9	141.1	142.6	143.9	.9	3.8
Handlers, equipment cleaners, helpers, and laborers	142.3	143.2	144.4	146.4	148.1	149.4	150.4	152.2	153.4	.8	3.6
Service occupations	140.6	141.0	142.6	143.9	145.4	146.6	148.1	150.0	151.3	.9	4.1
Production and nonsupervisory occupations[4]	140.8	141.9	143.1	145.3	146.9	148.4	149.5	151.4	152.7	.9	3.9
Workers, by industry division:											
Goods-producing	139.9	141.1	142.5	144.8	146.6	147.9	148.8	150.7	152.1	.9	3.8
Excluding sales occupations	139.3	140.5	141.8	144.2	145.9	147.2	148.2	150.1	151.5	.9	3.8
White-collar occupations	142.7	143.9	145.5	148.1	150.1	151.3	151.9	154.5	156.5	1.3	4.3
Excluding sales occupations	141.3	142.5	143.9	146.5	148.4	149.6	150.5	153.0	155.0	1.3	4.4
Blue-collar occupations	138.3	139.4	140.7	142.8	144.4	145.8	146.8	148.2	149.2	.7	3.4
Construction	136.9	137.9	138.7	140.8	143.2	145.1	146.7	148.2	150.3	1.4	5.0
Manufacturing	140.9	142.1	143.6	146.0	147.5	148.7	149.3	151.3	152.6	.9	3.5
White-collar occupations	143.0	144.3	145.8	148.2	150.2	151.4	151.5	154.2	156.0	1.2	3.9
Excluding sales occupations	141.3	142.5	143.8	146.2	148.2	149.3	149.7	152.2	154.0	1.2	3.9
Blue-collar occupations	139.4	140.5	142.1	144.4	145.6	146.7	147.8	149.1	150.0	.6	3.0
Durables	141.0	142.3	144.0	146.5	148.3	149.4	150.1	151.8	153.1	.9	3.2
Nondurables	140.4	141.5	142.8	144.9	146.0	147.5	147.7	150.4	151.6	.8	3.8
Service-producing	142.8	144.1	145.3	147.4	149.1	150.6	151.7	153.8	155.3	1.0	4.2
Excluding sales occupations	143.3	144.6	145.9	147.7	149.4	151.1	152.2	154.6	156.0	.9	4.4
White-collar occupations	144.3	145.8	147.0	149.3	151.0	152.6	153.7	155.8	157.4	1.0	4.2
Excluding sales occupations	145.5	147.0	148.3	150.3	152.1	153.9	155.1	157.5	159.1	1.0	4.6
Blue-collar occupations	137.8	139.1	139.8	141.8	143.1	144.5	145.3	147.7	148.7	.7	3.9
Service occupations	140.5	140.8	142.4	143.6	145.1	146.3	147.9	149.6	150.8	.8	3.9
Transportation and public utilities	140.9	141.8	142.3	143.9	145.7	147.4	148.3	150.5	152.4	1.3	4.6
Transportation	138.1	138.7	139.5	140.4	141.8	142.8	143.9	145.4	146.9	1.0	3.6
Public utilities	144.6	145.7	146.1	148.6	150.9	153.5	154.1	157.3	159.8	1.6	5.9
Communications	144.9	146.1	146.0	148.4	150.9	153.9	154.7	158.3	161.1	1.8	6.8
Electric, gas, and sanitary services	144.2	145.1	146.1	148.9	151.0	152.9	153.4	156.0	158.1	.3	4.7
Wholesale and retail trade	141.1	142.2	143.5	145.6	147.3	148.3	149.4	151.0	152.6	1.1	3.6
Excluding sales occupations	141.9	142.8	144.3	146.4	148.1	149.6	150.6	152.6	153.9	.9	3.9
Wholesale trade	144.6	146.3	148.5	150.0	151.8	152.1	154.4	155.1	157.8	1.7	4.0
Excluding sales occupations	144.0	145.8	147.4	149.6	151.1	152.7	154.9	156.9	158.5	1.0	4.9
Retail trade	139.1	140.0	140.7	143.2	144.8	146.2	146.6	148.7	149.7	.7	3.4
General merchandise stores	135.6	137.2	138.3	139.7	141.0	142.2	144.4	147.3	149.4	1.4	6.0
Food stores	135.7	137.0	138.1	140.1	142.5	143.4	144.5	146.1	148.2	1.4	4.0

See footnotes at end of table.

21. Continued—Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	1999			2000				2001		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2001	
Finance, insurance, and real estate	145.8	147.6	148.3	152.0	153.1	155.2	155.7	157.9	159.5	1.0	4.2
Excluding sales occupations	148.8	151.0	151.6	154.2	155.5	157.4	158.4	161.2	163.1	1.2	4.9
Banking, savings and loan, and other credit agencies	155.4	159.3	159.8	162.7	164.2	165.8	166.5	170.8	172.7	1.1	5.2
Insurance	144.0	144.5	145.8	149.9	151.3	154.8	155.2	157.6	159.3	1.1	5.3
Services	144.6	146.1	147.6	149.4	151.2	152.9	154.1	156.5	157.8	.8	4.4
Business services	148.7	150.7	151.9	154.2	156.3	157.5	158.4	160.5	163.0	1.6	4.3
Health services	141.4	142.6	144.2	145.8	147.5	149.0	150.6	152.7	154.7	1.3	4.9
Hospitals	142.1	143.0	144.6	145.8	147.5	149.2	151.1	153.5	155.9	1.6	5.7
Educational services	148.7	152.2	153.0	154.0	154.9	158.8	159.9	162.3	162.6	.2	5.0
Colleges and universities	149.6	152.6	153.3	154.6	155.5	158.6	159.2	162.2	162.6	.2	4.6
Nonmanufacturing	142.0	143.4	144.5	146.7	148.4	150.0	151.1	153.1	154.7	1.0	4.2
White-collar workers	144.1	145.6	146.9	149.2	151.0	152.6	153.7	155.8	157.5	1.1	4.3
Excluding sales occupations	145.3	146.8	148.1	150.2	152.0	153.8	155.1	157.5	159.1	1.0	4.7
Blue-collar occupations	136.8	138.0	138.7	140.6	142.3	143.9	144.8	146.9	148.1	.8	4.1
Service occupations	140.4	140.7	142.3	143.5	145.1	146.3	147.8	149.5	150.7	.8	3.9
State and local government workers	141.0	143.1	144.6	145.5	145.9	147.8	148.9	150.3	151.2	.6	3.6
Workers, by occupational group:											
White-collar workers	140.2	142.6	144.0	144.9	145.3	147.3	148.3	149.5	150.4	.6	3.5
Professional specialty and technical	139.3	142.0	143.2	144.1	144.5	146.6	147.4	148.4	149.2	.5	3.3
Executive, administrative, and managerial	142.8	144.5	146.1	147.0	147.2	149.2	150.7	152.4	153.7	.9	4.4
Administrative support, including clerical	141.3	143.0	145.0	145.9	146.5	148.3	149.4	150.7	151.6	.6	3.5
Blue-collar workers	139.5	140.9	142.5	143.7	144.2	145.9	147.2	148.6	149.0	.3	3.3
Workers, by industry division:											
Services	140.5	143.2	144.5	145.2	145.5	148.0	148.9	149.9	150.6	.5	3.5
Services excluding schools[5]	140.3	142.6	143.8	145.2	145.8	147.6	148.8	150.1	151.9	1.2	4.2
Health services	142.0	144.2	145.8	147.3	147.9	150.0	151.6	152.1	154.4	1.5	4.4
Hospitals	142.7	144.8	146.3	147.9	148.4	150.7	152.0	152.2	154.7	1.6	4.2
Educational services	140.3	143.1	144.4	145.0	145.2	147.9	148.7	149.6	150.1	.3	3.4
Schools	140.6	143.5	144.7	145.3	145.5	148.2	149.0	149.9	150.5	.4	3.4
Elementary and secondary	140.0	142.9	144.1	144.5	144.7	147.3	148.1	148.5	149.0	.3	3.0
Colleges and universities	142.1	144.8	146.5	147.4	147.6	150.5	151.7	153.7	154.3	.4	4.5
Public administration[3]	141.5	142.4	144.4	145.7	146.1	146.9	148.3	150.6	151.9	.9	4.0

[1] Cost (cents per hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

[2] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[5] Includes, for example, library, social, and health services.

22. Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1999			2000				2001		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2001	
Civilian workers[1]	139.8	141.3	142.5	144.0	145.4	147.0	147.9	149.5	150.8	0.9	3.7
Workers, by occupational group:											
White-collar workers	141.6	143.3	144.6	146.2	147.6	149.2	150.2	151.7	153.1	.9	3.7
Professional specialty and technical	141.0	142.6	144.0	144.9	146.4	148.3	149.6	151.1	152.-	.6	3.8
Executive, adminitrative, and managerial	143.8	145.9	147.2	148.6	149.9	151.6	152.4	154.0	155.8	1.2	3.9
Administrative support, including clerical	140.9	142.3	143.5	145.5	146.9	148.5	149.6	151.6	152,7	.8	4.0
Blue-collar workers	135.8	137.0	137.9	139.2	140.6	142.0	142.9	144.7	146.0	.9	3.8
Service occupations	139.4	140.1	141.7	143.0	144.0	145.7	147.1	148.6	149.7	.7	4.0
Workers, by industry division:											
Goods-producing	137.4	138.6	139.7	141.3	143.0	144.3	145.3	147.0	147,6	1.1	3.9
Manufacturing	139.0	140.2	141.5	142.9	144.4	145.7	146.5	148.5	150.0	1.0	3.9
Service-producing	140.7	142.3	143.5	145.0	146.3	148.0	148.9	150.5	151.7	.8	3.7
Services	142.3	144.1	145.5	146.6	147.9	149.9	151.0	152.6	153.6	.7	3.9
Health services	139.7	140.9	142.5	143.8	145.3	146.7	148.3	149.8	151.8	1.3	4.5
Hospitals	138.8	140.1	141.6	142.6	143.8	145.6	147.3	148.8	151.2	1.6	5.1
Educational services	140.6	143.7	144.7	145.3	145.6	148.9	149.6	150.5	151.0	.3	3.7
Public administration[2]	137.8	139.5	141.5	142.5	142.9	144.6	146.1	147.6	148.7	.7	4.1
Nonmanufacturing	139.9	141.5	142.6	144.2	145.5	147.2	148.1	149.7	149.7	.8	3.7
Private industry workers	139.7	141.0	142.2	143.9	145.4	146.8	147.7	149.4	150.9	1.0.9	3.8
Excluding sales occupations	139.6	140.8	142.0	143.5	145.1	146.5	147.6	149.5	150.8	1.3	3.9
Workers, by occupational group:											
White-collar workers	142.1	143.5	144.8	146.6	148.3	149.7	150.6	152.3	153.8	1.0	3.7
Excluding sales occupations	142.5	143.9	145.2	146.7	148.5	149.9	151.1	153.0	154.4	.8	4.0
Professional specialty and technical occupations	141.8	142.6	144.1	145.1	147.3	148.6	150.2	152.1	153.2	.7	4.0
Executive, adminitrative, and managerial occupations	144.3	146.4	147.6	149.2	150.7	152.3	153.0	154.7	156.5	1.2	3.8
Sales occupations	140.5	142.1	143.3	146.7	147.9	149.0	148.7	149.2	151.5	1.5	2.4
Administrative support occupations, including clerical	141.4	142.7	143.8	146.0	147.5	149.1	150.1	152.3	153.6	.9	4.1
Blue-collar workers	135.6	136.8	137.7	139.1	140.5	141.9	142.8	144.6	145.9	.9	3.8
Precision production, craft, and repair occupations	135.6	136.7	137.5	138.9	140.6	142.0	142.8	144.6	145.7	.8	3.6
Machine operators, assemblers, and inspectors	136.7	138.3	139.5	140.7	141.6	142.9	143.7	145.6	146.9	.9	3.7
Transportation and material moving occupations	131.0	131.9	132.7	134.1	135.2	136.5	137.6	139.5	140.7	.9	4.1
Handlers, equipment cleaners, helpers, and laborers	138.3	139.4	140.4	141.8	143.6	145.0	146.2	148.0	149.8	1.2	4.3
Service occupations	137.8	138.0	139.6	141.0	142.5	143.5	144.9	146.4	147.5	.8	3.5
Production and nonsupervisory occupations[3]	138.2	139.3	140.4	142.1	143.7	145.0	146.0	147.7	149.0	.9	3.7
Workers, by industry division:											
Goods-producing	137.3	138.5	139.7	141.3	143.0	144.3	145.2	147.0	148.6	1.1	3.9
Excluding sales occupations	136.6	137.8	138.9	140.5	142.1	143.4	144.6	146.3	147.8	1.0	4.0
White-collar occupations	140.5	141.7	143.0	145.0	146.8	147.9	148.7	150.5	152.3	1.2	3.7
Excluding sales occupations	138.8	140.1	141.3	143.2	144.9	146.0	147.2	148.9	150.5	1.1	3.9
Blue-collar occupations	135.4	136.6	137.6	139.0	140.5	142.0	143.1	144.7	146.1	1.0	4.0
Construction	131.9	133.0	133.6	136.0	138.0	139.4	140.7	142.1	143.9	1.3	4.3
Manufacturing	139.0	140.2	141.5	142.9	144.4	145.7	146.5	148.5	150.0	1.0	3.9
White-collar occupations	141.4	142.7	144.0	145.8	147.7	148.7	149.2	151.1	152.7	1.1	3.4
Excluding sales occupations	139.6	140.8	142.0	143.7	145.6	146.6	147.5	149.9	150.5	.9	3.4
Blue-collar occupations	137.2	138.4	139.7	140.8	142.0	143.4	144.6	146.4	147.8	1.0	4.1
Durables	139.1	140.4	141.8	143.0	144.7	146.1	147.3	149.0	150.5	1.0	4.0
Nondurables	138.7	139.7	140.9	142.7	143.9	145.0	145.4	147.5	149.0	1.0	3.5
Service-producing	140.8	142.1	143.3	145.0	146.5	147.9	148.9	150.5	151.9	.9	3.7
Excluding sales occupations	141.4	142.6	143.8	145.3	146.9	148.3	149.4	151.3	152.6	.9	3.9
White-collar occupations	142.3	143.8	145.0	146.9	148.5	150.0	150.9	152.5	154.0	1.0	3.7
Excluding sales occupations	143.7	145.1	146.4	147.8	149.6	151.2	152.3	154.3	155.6	.8	4.0
Blue-collar occupations	135.9	137.0	137.8	139.1	140.3	141.6	142.2	144.3	145.3	.7	3.6
Service occupations	137.8	138.0	139.6	141.1	142.5	143.5	144.8	146.1	147.2	.8	3.3
Transportation and public utilities	136.8	137.5	137.9	138.5	140.0	141.3	142.3	143.7	145.7	1.4	4.1
Transportation	133.7	134.4	134.9	134.9	136.2	137.4	138.6	139.8	141.6	1.3	4.0
Public utilities	140.6	141.5	141.8	143.2	144.9	146.4	147.1	148.7	151.0	1.5	4.2
Communications	141.1	141.9	142.2	143.4	145.0	146.7	147.4	149.2	151.8	1.7	4.7
Electric, gas, and sanitary services	140.0	140.9	141.3	143.0	144.7	145.9	146.6	148.1	149.9	1.2	3.6
Wholesale and retail trade	139.6	140.7	142.0	143.8	145.5	146.4	147.4	148.4	150.1	1.1	3.2
Excluding sales occupations	141.1	141.8	143.3	145.2	146.8	148.2	149.0	150.7	151.9	.8	3.5
Wholesale trade	142.3	144.3	146.5	147.4	149.4	149.6	151.6	151.6	154.5	1.9	3.4
Excluding sales occupations	143.0	144.8	146.4	147.9	149.7	151.3	153.2	154.9	156.5	1.0	4.5
Retail trade	138.3	138.9	139.6	142.1	143.5	144.8	145.2	146.9	147.8	.6	3.0
General merchandise stores	134.3	135.6	136.7	137.8	138.5	139.7	142.2	143.8	145.5	1.2	5.1
Food stores	132.8	133.9	134.9	136.7	139.5	140.2	141.6	143.3	144.5	.8	3.6

See footnotes at end of table.

22. Continued—Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	1999			2000				2001		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2001	
Finance, insurance, and real estate	142.4	144.5	145.2	148.7	149.5	151.7	151.7	153.9	154.6	0.5	3.4
Excluding sales occupations	144.8	147.5	148.0	150.2	151.5	153.3	154.1	156.6	157.6	.6	4.0
Banking, savings and loan, and other credit agencies	154.5	159.2	159.6	162.0	163.3	165.0	165.7	169.4	170.8	.8	4.6
Insurance	139.8	140.2	141.5	145.5	146.6	150.7	150.8	152.4	153.3	.6	4.6
Services	143.2	144.5	146.0	147.4	149.1	150.6	151.8	153.8	155.0	.8	4.0
Business services	146.3	148.5	149.8	152.0	154.1	155.3	156.0	158.2	160.8	1.6	4.3
Health services	139.6	140.6	142.2	143.5	145.3	146.6	148.1	149.8	151.8	1.3	4.5
Hospitals	138.3	139.3	140.9	141.8	143.3	144.9	146.8	148.5	151.0	1.7	5.4
Educational services	144.2	147.5	148.2	148.9	149.6	153.4	154.3	155.4	156.1	.5	4.3
Colleges and universities	144.4	147.2	147.9	148.9	149.4	152.5	152.9	154.1	155.0	.6	3.7
Nonmanufacturing	139.7	141.0	142.1	143.9	145.5	146.9	147.9	149.5	150.9	.9	3.7
White-collar workers	142.0	143.5	144.7	146.5	148.2	149.6	150.6	152.3	153.8	1.0	3.8
Excluding sales occupations	143.2	144.6	145.9	147.4	149.1	150.7	151.9	153.9	155.3	.9	4.2
Blue-collar occupations	134.0	135.1	135.8	137.4	138.9	140.3	140.9	142.8	143.9	.8	3.6
Service occupations	137.7	137.9	139.5	140.9	142.4	143.4	144.7	146.0	147.1	.8	3.3
State and local government workers	139.6	142.2	143.5	144.3	144.7	147.2	148.3	150.2	151.2	.5	3.7
Workers, by occupational group:											
White-collar workers	139.3	142.1	143.4	144.1	144.5	[3] 147.1	148.0	149.0	149.8	.5	3.4
Professional specialty and technical	139.4	142.5	143.6	144.3	144.7	147.4	148.2	149.1	149.8	.5	3.5
Executive, administrative, and managerial	140.5	142.7	144.3	144.9	145.1	147.3	148.8	150.1	151.5	.9	4.4
Administrative support, including clerical	137.5	139.6	141.7	142.4	143.0	145.0	146.2	147.0	147.6	.4	3.2
Blue-collar workers	137.6	139.4	140.7	141.5	142.1	143.9	145.1	146.0	146.5	.3	3.1
Workers, by industry division:											
Services	139.9	142.9	144.0	144.6	144.9	147.9	148.7	149.5	150.2	.5	3.7
Services excluding schools[4]	139.6	142.1	143.2	144.3	144.8	146.7	147.9	149.1	150.7	1.1	4.1
Health services	140.4	142.8	144.2	145.3	145.7	147.7	149.3	149.9	151.9	1.3	4.3
Hospitals	140.6	142.8	144.1	145.3	145.6	147.7	149.2	149.5	151.8	1.5	4.3
Educational services	139.8	142.9	144.0	144.5	144.8	148.0	148.7	149.5	150.0	.3	3.6
Schools	140.0	143.1	144.2	144.7	144.9	148.1	148.9	149.7	150.2	.3	3.7
Elementary and secondary	139.9	143.1	144.1	144.5	144.6	147.9	148.5	149.0	149.5	.3	3.4
Colleges and universities	139.8	142.6	144.4	144.9	145.6	148.3	149.5	151.4	151.8	.3	4.3
Public administration[2]	137.8	139.5	141.5	142.5	142.9	144.6	146.1	147.6	148.7	.7	4.1

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

[4] Includes, for example, library, social, and health services.

23. Employment Cost Index, benefits, private industry workers by occupation and industry group

[June 1989 = 100]

Series	1999			2000				2001		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2001	
Private industry workers	147.3	148.6	150.2	153.8	155.7	157.5	158.6	161.5	163.2	1.1	4.8
Workers, by occupational group:											
White-collar workers	149.4	151.0	152.5	156.3	158.5	160.4	161.5	165.2	167.4	1.3	5.6
Blue-collar workers	143.6	144.8	146.2	150.0	151.6	153.1	154.1	155.7	156.7	.3	3.0
Workers, by industry division:											
Goods-producing	145.2	146.3	148.2	152.3	154.2	155.7	156.2	158.5	159.6	.7	3.5
Service-producing	147.9	149.4	150.7	154.0	156.0	157.9	159.4	162.6	164.6	1.2	5.5
Manufacturing	144.5	145.7	147.8	152.3	153.9	154.9	154.8	157.1	157.9	.5	2.6
Nonmanufacturing	148.0	149.4	150.7	154.0	156.1	158.1	159.7	162.9	164.9	1.2	5.6

24. Employment Cost Index, private nonfarm workers by bargaining status, region, and area size

[June 1989 = 100]

Series	1999			2000				2001		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2001	
COMPENSATION											
Workers, by bargaining status[1]											
Union	139.0	140.2	141.2	143.0	144.4	146.1	146.9	147.9	149.5	1.1	0.6
Goods-producing	138.2	139.2	140.8	143.3	144.8	146.8	147.3	147.9	149.3	.9	3.1
Service-producing	139.7	141.0	141.4	142.5	143.9	145.2	146.4	147.6	149.5	1.3	3.9
Manufacturing	138.1	139.1	141.0	144.5	145.4	147.1	147.4	147.9	148.8	.6	2.3
Nonmanufacturing	139.2	140.3	140.8	141.7	143.4	145.0	146.2	147.3	149.4	1.4	4.2
Nonunion	142.5	143.8	145.2	147.4	149.1	150.6	151.6	153.8	155.3	1.0	4.2
Goods-producing	140.5	141.8	143.1	145.4	147.2	148.4	149.3	151.6	153.1	1.0	4.0
Service-producing	143.0	144.4	145.7	148.0	149.6	151.2	152.3	154.4	155.9	1.0	4.2
Manufacturing	141.7	143.0	144.4	146.5	148.2	149.2	149.9	152.4	153.7	.9	3.7
Nonmanufacturing	142.4	143.8	145.1	147.4	149.1	150.7	151.8	153.9	155.4	1.0	4.2
Workers, by region[1]											
Northeast	141.5	143.2	144.3	146.3	147.6	149.3	150.3	151.6	153.7	1.4	4.1
South	140.7	141.8	143.0	145.0	146.7	147.6	148.6	151.1	152.3	.8	3.8
Midwest (formerly North Central)	143.6	145.0	146.3	148.9	150.7	152.2	153.3	154.8	156.0	.8	3.5
West	142.1	143.3	144.7	147.0	148.8	150.8	151.8	154.3	156.0	1.1	4.8
Workers, by area size[1]											
Metropolitan areas	142.0	143.3	144.7	146.9	148.6	150.1	151.0	153.1	154.6	1.0	4.0
Other areas	141.8	143.1	143.6	146.0	147.7	148.8	150.3	152.1	153.7	1.1	4.1
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union	134.7	135.7	136.5	137.2	138.5	140.0	141.2	142.1	143.7	1.1	3.8
Goods-producing	133.8	134.9	136.1	137.2	138.4	140.2	141.3	142.4	144.2	1.3	4.2
Service-producing	135.8	136.8	137.2	137.6	138.9	140.1	141.5	142.2	143.7	1.1	3.5
Manufacturing	134.7	135.8	137.5	138.8	139.7	141.4	142.6	143.9	145.5	1.1	4.2
Nonmanufacturing	134.6	135.6	135.9	136.4	137.8	139.2	140.4	141.1	142.7	1.1	3.6
Nonunion	140.7	142.0	143.3	145.1	146.7	148.1	149.0	150.8	152.2	.9	3.7
Goods-producing	138.8	140.0	141.1	142.9	144.7	145.8	146.8	148.8	150.3	1.0	3.9
Service-producing	141.3	142.6	143.9	145.8	147.3	148.7	149.6	151.4	152.7	.9	3.7
Manufacturing	140.5	141.7	142.9	144.4	146.1	147.2	148.0	150.1	151.6	1.0	3.8
Nonmanufacturing	140.5	141.8	143.0	145.0	146.6	148.0	148.9	150.7	152.0	.9	3.7
Workers, by region[1]											
Northeast	138.2	139.9	140.9	142.3	143.7	145.3	146.0	147.3	149.2	1.3	3.8
South	139.4	140.2	141.5	143.0	144.6	145.3	146.3	148.3	149.3	.7	3.3
Midwest (formerly North Central)	141.0	142.4	143.6	145.3	147.1	148.6	149.6	150.9	152.3	.9	3.5
West	140.2	141.3	142.6	144.7	146.3	148.2	149.2	151.3	152.9	1.1	4.5
Workers, by area size[1]											
Metropolitan areas	139.9	141.2	142.5	144.1	145.7	147.1	148.0	149.8	151.2	.9	3.8
Other areas	138.4	139.8	140.2	142.2	143.7	144.7	146.0	147.4	148.8	.9	3.5

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

25. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, medium and large private establishments, selected years, 1980–97

Item	1980	1982	1984	1986	1988	1989	1991	1993	1995	1997
Scope of survey (in 000's)	21,352	21,043	21,013	21,303	31,059	32,428	31,163	28,728	33,374	38,409
Number of employees (in 000's):										
With medical care	20,711	20,412	20,383	20,238	27,953	29,834	25,865	23,519	25,546	29,340
With life insurance	20,498	20,201	20,172	20,451	28,574	30,482	29,293	26,175	29,078	33,495
With defined benefit plan	17,936	17,676	17,231	16,190	19,567	20,430	18,386	16,015	17,417	19,202
Time-off plans										
Participants with:										
Paid lunch time	10	9	9	10	11	10	8	9	–	–
Average minutes per day	–	25	26	27	29	26	30	29	–	–
Paid rest time	75	76	73	72	72	71	67	68	–	–
Average minutes per day	–	25	26	26	26	26	28	26	–	–
Paid funeral leave	–	–	–	88	85	84	80	83	80	81
Average days per occurrence	–	–	–	3.2	3.2	3.3	3.3	3.0	3.3	3.7
Paid holidays	99	99	99	99	96	97	92	91	89	89
Average days per year	10.1	10.0	9.8	10.0	9.4	9.2	10.2	9.4	9.1	9.3
Paid personal leave	20	24	23	25	24	22	21	21	22	20
Average days per year	–	3.8	3.6	3.7	3.3	3.1	3.3	3.1	3.3	3.5
Paid vacations	100	99	99	100	98	97	96	97	96	95
Paid sick leave [1]	62	67	67	70	69	68	67	65	58	56
Unpaid maternity leave	–	–	–	–	33	37	37	60	–	–
Unpaid paternity leave	–	–	–	–	16	18	26	53	–	–
Unpaid family leave	–	–	–	–	–	–	–	–	84	93
Insurance plans										
Participants in medical care plans	97	97	97	95	90	92	83	82	77	76
Percent of participants with coverage for:										
Home health care	–	–	46	66	76	75	81	86	78	85
Extended care facilities	58	62	62	70	79	80	80	82	73	78
Physical exam	–	–	8	18	28	28	30	42	56	63
Percent of participants with employee contribution required for:										
Self coverage	26	27	36	43	44	47	51	61	67	69
Average monthly contribution	–	–	$11.93	$12.80	$19.29	$25.31	$26.60	$31.55	$33.92	$39.14
Family coverage	46	51	58	63	64	66	69	76	78	80
Average monthly contribution	–	–	$35.93	$41.40	$60.07	$72.10	$96.97	$107.42	$118.33	$130.07
Participants in life insurance plans	96	96	96	96	92	94	94	91	87	87
Percent of participants with:										
Accidental death and dismemberment insurance	69	72	74	72	78	71	71	76	77	74
Survivor income benefits	–	–	–	10	8	7	6	5	7	6
Retiree protection available	–	64	64	59	49	42	44	41	37	33
Participants in long-term disability insurance plans	40	43	47	48	42	45	40	41	42	43
Participants in sickness and accident insurance plans	54	51	51	49	46	43	45	44	–	–
Participants in short-term disability plans [1]	–	–	–	–	–	–	–	–	53	55
Retirement plans										
Participants in defined benefit pension plans	84	84	82	76	63	63	59	56	52	50
Percent of participants with:										
Normal retirement prior to age 65	55	58	63	64	59	62	55	52	52	52
Early retirement available	98	97	97	98	98	97	98	95	96	95
Ad hoc pension increase in last 5 years	–	–	47	35	26	22	7	6	4	10
Terminal earnings formula	53	52	54	57	55	64	56	61	58	56
Benefit coordinated with Social Security	45	45	56	62	62	63	54	48	51	49
Participants in defined contribution plans	–	–	–	60	45	48	48	49	55	57
Participants in plans with tax-deferred savings arrangements	–	–	–	33	36	41	44	43	54	55
Other benefits										
Employees eligible for:										
Flexible benefits plans	–	–	–	2	5	9	10	12	12	13
Reimbursement accounts [2]	–	–	–	5	12	23	36	52	38	32
Premium conversion plans	–	–	–	–	–	–	–	–	5	7

[1] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1995 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-terms disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[2] Prior to 1995, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

26. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, small private establishments and State and local governments, 1987, 1990, 1992, 1994, and 1996

Item	Small private establishments				State and local governments			
	1990	1992	1994	1996	1987	1990	1992	1994
Scope of survey (in 000's)	32,466	34,360	35,910	39,816	10,321	12,972	12,466	12,907
Number of employees (in 000's):								
With medical care	22,402	24,396	23,536	25,599	9,599	12,064	11,219	11,192
With life insurance	20,778	21,990	21,955	24,635	8,773	11,415	11,095	11,194
With defined benefit plan	6,493	7,559	5,480	5,883	9,599	11,675	10,845	11,708
Time-off plans								
Participants with:								
Paid lunch time	8	9	–	–	17	11	10	–
Average minutes per day	37	37	–	–	34	36	34	–
Paid rest time	48	49	–	–	58	56	53	–
Average minutes per day	27	26	–	–	29	29	29	–
Paid funeral leave	47	50	50	51	56	63	65	62
Average days per occurrence	2.9	3.0	3.1	3.0	3.7	3.7	3.7	3.7
Paid holidays	84	82	82	80	81	74	75	73
Average days per year[1]	9.5	9.2	7.5	7.6	10.9	13.6	14.2	11.5
Paid personal leave	11	12	13	14	38	39	38	38
Average days per year	2.8	2.6	2.6	3.0	2.7	2.9	2.9	3.0
Paid vacations	88	88	88	86	72	67	67	66
Paid sick leave[2]	47	53	50	50	97	95	95	94
Unpaid leave	17	18	–	–	57	51	59	–
Unpaid paternity leave	8	7	–	–	30	33	44	–
Unpaid family leave	–	–	47	48	–	–	–	93
Insurance plans								
Participants in medical care plans	69	71	66	64	93	93	90	87
Percent of participants with coverage for:								
Home health care	79	80	–	–	76	82	87	84
Extended care facilities	83	84	–	–	78	79	84	81
Physical exam	26	28	–	–	36	36	47	55
Percent of participants with employee contribution required for:								
Self coverage	42	47	52	52	35	38	43	47
Average monthly contribution	$25.13	$36.51	$40.97	$42.63	$15.74	$25.53	$28.97	$30.20
Family coverage	67	73	76	75	71	65	72	71
Average monthly contribution	$109.34	$150.54	$159.63	$181.53	$71.89	$117.59	$139.23	$149.70
Participants in life insurance plans	64	64	61	62	85	88	89	87
Percent of participants with:								
Accidental death and dismemberment insurance	78	76	79	77	67	67	74	64
Survivor income benefits	1	1	2	1	1	1	1	2
Retiree protection available	19	25	20	13	55	45	46	46
Participants in long-term disability insurance plans	19	23	20	22	31	27	28	30
Participants in sickness and accident insurance plans	6	26	26	–	14	21	22	21
Participants in short-term disability plans[2]	–	–	–	29	–	–	–	–
Retirement plans								
Participants in defined benefit pension plans	20	22	15	15	93	90	87	91
Percent of participants with:								
Normal retirement prior to age 65	54	50	–	47	92	89	92	92
Early retirement available	95	95	–	92	90	88	89	87
Ad hoc pension increase in last 5 years	7	4	–	–	33	16	10	13
Terminal earnings formula	58	54	–	53	100	100	100	99
Benefit coordinated with Social Security	49	46	–	44	18	8	10	49
Participants in defined contribution plans	31	33	34	38	9	9	9	9
Participants in plans with tax-deferred savings arrangements	17	24	23	28	28	45	45	24
Other benefits								
Employees eligible for:								
Flexible benefits plans	1	2	3	4	5	5	5	5
Reimbursement accounts[3]	8	14	19	12	5	31	50	64
Premium conversion plans	–	–	–	7	–	–	–	

[1] Methods used to calculate the average number of paid holidays were revised in 1994 to count partial days more precisely. Average holidays for 1994 are not comparable with those reported in 1990 and 1992.

[2] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1996 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-term disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[3] Prior to 1996, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

27. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1999	2000										
	1999	2000	Dec.	Jan.[P]	Feb.[P]	Mar.[P]	Apr.[P]	May[P]	June[P]	July[P]	Aug.[P]	Sept.[P]	Oct.[P]	Nov.[P]	Dec.[P]
Number of stoppages:															
Beginning in period	17	39	0	0	1	2	6	2	5	3	6	5	7	0	2
In effect during period	21	40	1	1	2	4	7	4	8	6	8	10	12	3	3
Workers involved:															
Beginning in period (in thousands)	73	394	.0	.0	17.0	5.7	26.7	136.9	11.4	7.2	99.2	17.8	60.3	.0	8.7
In effect during period (in thousands)	80	397	3.0	3.0	20.0	25.7	29.7	141.3	150.8	146.9	237.2	167.8	211.6	4.5	10.3
Days idle:															
Number (in thousands)	1,995	20,419	63.0	60.0	298.0	327.6	272.2	3,095.3	3,134.0	2,804.4	4,186.6	3,029.3	3,088.6	64.5	58.9
Percent of estimated working time[1]	.01	.06	([2])	([2])	.01	.01	.01	.10	.10	.10	.13	.11	.11	([2])	([2])

[1] Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in " 'Total economy' measures of strike idleness," *Monthly Labor Review*, October 1968, pp. 54–56.

[2] Less than 0.005.

[P] = preliminary.

28. Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items	166.6	172.2	172.8	172.8	173.7	174.0	174.1	174.0	175.1	175.8	176.2	176.9	177.7	178.0	177.5
All items (1967 = 100)	499.0	515.8	517.5	517.6	520.3	521.2	521.5	521.1	524.5	526.7	528.0	529.9	532.2	533.3	531.6
Food and beverages	164.6	168.4	168.7	169.2	169.4	169.6	169.5	170.5	171.4	171.8	172.2	172.4	172.9	173.4	174.0
Food	164.1	167.8	168.1	168.7	168.9	169.1	168.9	170.0	170.9	171.3	171.7	171.9	172.5	173.0	173.5
Food at home	164.2	167.9	168.3	168.9	169.0	169.1	168.8	170.2	171.3	171.8	172.0	172.2	172.8	173.3	173.9
Cereals and bakery products	185.0	188.3	189.6	189.9	188.6	190.1	189.0	190.7	191.1	191.9	191.9	192.5	193.2	194.2	194.9
Meats, poultry, fish, and eggs	147.9	154.5	155.8	156.8	156.9	156.8	155.5	156.6	158.0	159.5	160.1	160.7	160.8	161.7	162.3
Dairy and related products[1]	159.6	160.7	160.5	161.0	161.6	161.9	161.4	161.5	163.6	163.6	163.2	163.4	164.7	166.9	168.3
Fruits and vegetables	203.1	204.6	201.0	202.5	204.6	206.2	207.3	215.1	212.6	211.5	211.5	213.3	213.1	211.8	210.7
Nonalcoholic beverages and beverage materials	134.3	137.8	138.5	138.2	138.0	137.4	137.9	136.7	139.4	139.9	139.5	138.9	138.1	138.6	138.9
Other foods at home	153.5	155.6	156.6	156.9	156.7	155.8	156.0	156.3	157.8	157.9	158.6	157.6	159.6	159.5	160.4
Sugar and sweets	152.3	154.0	154.1	154.6	154.6	153.9	153.0	153.5	155.7	155.8	155.7	154.0	155.8	155.7	156.1
Fats and oils	148.3	147.4	148.1	148.9	148.7	149.7	146.5	150.2	153.0	152.6	153.1	151.5	154.7	156.7	157.8
Other foods	168.9	172.2	173.5	173.7	173.4	172.0	173.3	172.7	173.8	174.0	175.1	174.4	176.4	175.7	176.8
Other miscellaneous foods[1,2]	104.9	107.5	108.8	109.5	107.7	106.8	110.0	108.9	109.0	108.7	108.4	108.5	108.8	107.7	109.6
Food away from home[1]	165.1	169.0	169.1	169.5	170.0	170.3	170.4	170.8	171.4	171.8	172.3	172.7	173.1	173.6	174.1
Other food away from home[1,2]	105.2	109.0	108.7	109.3	110.0	110.5	111.0	111.1	111.3	111.4	111.6	111.8	112.4	112.6	113.8
Alcoholic beverages	169.7	174.7	175.2	175.6	175.5	175.9	176.4	176.5	177.2	177.7	177.8	178.1	178.5	179.1	179.7
Housing	163.9	169.6	170.6	170.9	171.4	171.7	171.6	171.9	174.1	174.7	175.4	175.4	175.9	177.3	177.6
Shelter	187.3	193.4	194.1	194.7	194.6	195.2	195.2	195.1	196.4	197.6	198.9	199.2	199.6	200.7	201.4
Rent of primary residence	177.5	183.9	183.9	184.6	185.3	186.1	186.8	187.6	188.2	188.9	189.6	190.2	191.0	191.6	192.3
Lodging away from home	112.3	117.5	122.8	123.0	118.1	118.5	113.9	108.8	114.1	119.1	124.2	121.8	120.0	123.7	124.0
Owners' equivalent rent of primary residence[3]	192.9	198.7	198.6	199.2	199.9	200.5	201.2	201.8	202.4	105.4	203.6	204.2	204.9	205.7	206.3
Tenants' and household insurance[1,2]	101.3	103.7	104.2	104.0	104.2	104.2	104.5	104.7	105.0	105.1	105.4	105.5	106.8	107.0	106.6
Fuels and utilities	128.8	137.9	141.3	140.9	143.8	143.1	142.7	145.3	153.8	152.3	150.8	149.7	151.3	155.7	154.8
Fuels	113.5	122.8	126.5	125.9	129.1	128.3	127.7	130.6	139.8	138.0	136.3	135.1	136.8	141.6	140.5
Fuel oil and other fuels	91.4	129.7	120.8	120.8	133.7	137.6	140.3	144.9	149.1	144.6	138.1	134.4	131.9	129.6	123.8
Gas (piped) and electricity	120.9	128.0	133.0	132.4	134.8	133.6	132.7	135.6	145.7	144.0	142.6	141.6	143.8	149.4	148.6
Household furnishings and operations	126.7	128.2	128.6	128.6	129.0	128.7	128.9	128.6	128.8	129.1	129.1	129.1	128.9	129.2	129.2
Apparel	131.3	129.6	124.5	125.3	130.4	132.8	131.8	127.8	125.4	128.4	132.2	131.9	129.8	126.3	122.6
Men's and boys' apparel	131.1	129.7	126.4	126.8	129.1	130.4	131.3	128.0	125.5	126.6	127.5	128.2	129.1	125.8	122.5
Women's and girls' apparel	123.3	121.5	113.9	115.6	124.2	127.9	124.8	119.7	115.5	121.0	127.8	127.0	122.3	117.5	111.6
Infants' and toddlers' apparel[1]	129.0	130.6	128.1	126.7	127.4	130.8	130.7	128.2	127.4	129.3	1316.0	131.4	130.6	127.3	124.5
Footwear	125.7	123.8	120.3	120.7	124.9	125.3	125.4	123.8	121.4	122.6	125.2	124.9	124.4	122.1	121.3
Transportation	144.4	153.3	155.0	153.2	154.7	154.4	155.2	154.4	154.4	154.9	153.9	156.1	159.2	158.3	154.4
Private transportation	140.5	149.1	150.6	148.6	150.4	150.4	151.1	150.3	150.3	150.7	149.7	152.1	155.3	154.0	149.9
New and used motor vehicles[2]	100.1	100.8	100.6	100.4	100.4	100.8	101.5	102.1	102.3	102.2	101.9	101.8	101.4	101.1	100.8
New vehicles	142.9	142.8	142.5	141.9	141.4	141.6	142.7	143.6	143.7	143.3	142.8	142.7	142.3	141.7	141.2
Used cars and trucks[1]	152.0	155.8	155.3	155.2	156.2	157.9	159.3	160.2	160.4	160.4	159.9	159.7	159.1	158.9	158.3
Motor fuel	100.7	129.3	136.1	128.4	135.2	133.1	133.0	127.8	126.6	127.5	124.1	133.6	146.8	142.0	125.6
Gasoline (all types)	100.1	128.6	135.4	127.7	134.3	132.3	132.2	127.0	125.8	126.8	123.3	132.8	146.0	141.3	124.9
Motor vehicle parts and equipment	100.5	101.5	101.5	101.5	101.7	101.7	102.5	103.1	103.6	104.0	104.7	104.2	104.4	104.4	105.1
Motor vehicle maintenance and repair	171.9	177.3	177.2	178.2	178.7	179.4	179.9	179.9	180.6	181.5	181.7	181.9	182.5	182.7	183.4
Public transportation	197.7	209.6	213.7	215.7	213.0	208.0	209.1	209.5	210.2	212.1	210.0	208.3	209.3	216.3	216.1
Medical care	250.6	260.8	261.4	262.6	263.1	263.7	264.1	264.8	267.1	268.9	270.0	270.8	271.4	272.5	273.1
Medical care commodities	230.7	238.1	238.6	239.2	239.4	239.6	240.0	241.1	242.3	243.8	244.9	245.7	246.6	248.1	248.5
Medical care services	255.1	266.0	266.7	268.0	268.7	269.4	269.8	270.4	273.0	274.9	275.9	276.8	277.3	278.3	278.9
Professional services	229.2	137.7	238.3	238.9	239.3	239.7	239.8	240.3	242.6	244.1	244.8	245.6	245.8	246.5	246.8
Hospital and related services	299.5	317.3	318.1	321.3	322.5	323.6	324.7	325.3	328.5	331.0	332.8	333.6	335.1	336.6	337.9
Recreation[2]	102.1	103.3	103.7	103.9	103.8	103.8	103.7	103.7	104.1	104.3	104.3	105.0	105.0	104.8	105.0
Video and audio[1,2]	100.7	101.0	101.3	101.6	101.5	101.0	100.9	100.7	101.2	101.6	101.6	101.7	101.6	101.3	101.7
Education and communication[2]	101.2	102.5	102.0	102.8	102.9	103.6	103.2	103.6	103.9	104.0	104.3	104.1	104.0	104.4	104.8
Education[2]	107.0	112.5	111.8	113.0	114.9	115.3	115.4	115.5	115.8	116.0	116.1	116.1	116.4	116.9	117.2
Educational books and supplies	261.7	279.9	278.1	280.2	284.8	285.2	284.8	285.4	289.2	290.4	290.8	290.8	290.7	293.9	295.1
Tuition, other school fees, and child care	308.4	324.0	321.7	325.4	330.8	332.1	332.5	332.7	333.3	333.7	334.0	334.1	335.0	336.2	337.2
Communication[1,2]	96.0	93.6	93.3	93.7	92.1	93.1	92.3	93.0	93.3	93.2	93.7	93.3	92.9	93.1	93.6
Information and information processing[1,2]	95.5	92.8	92.5	93.0	91.3	92.3	91.5	92.2	92.4	92.2	92.7	92.3	91.8	92.1	92.5
Telephone services[1,2]	100.1	98.5	98.2	98.9	97.0	98.3	97.5	98.4	98.8	98.7	99.4	99.0	98.7	99.0	99.6
Information and information processing other than telephone services[1,4]	30.5	25.9	25.7	25.2	25.0	24.7	24.2	23.8	23.2	22.9	22.5	22.1	21.7	21.4	21.3
Personal computers and peripheral equipment[1,2]	53.5	41.1	40.3	39.5	38.9	38.3	37.3	36.5	35.0	33.9	32.4	31.7	30.4	29.8	29.3
Other goods and services	258.3	271.1	272.2	271.6	274.7	273.0	276.2	274.0	275.9	277.2	277.7	277.7	281.3	281.2	285.8
Tobacco and smoking products	355.8	394.9	400.7	394.1	408.0	396.7	411.0	396.6	404.3	408.5	407.7	424.2	418.7	421.0	441.2
Personal care[1]	161.1	165.6	165.7	166.2	166.6	167.0	167.4	167.8	168.2	168.6	169.1	169.6	169.5	170.0	170.7
Personal care products[1]	151.8	153.7	153.7	154.3	154.3	153.4	153.9	155.5	155.3	155.3	155.7	155.8	153.2	154.6	155.1
Personal care services[1]	171.4	178.1	178.2	179.3	179.9	180.3	180.6	181.3	181.6	181.9	182.2	183.4	184.1	184.1	184.8

See footnotes at end of table.

28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Miscellaneous personal services	243.0	252.3	252.9	253.6	254.0	255.1	255.7	255.7	257.3	258.6	259.5	260.2	261.0	261.8	263.2
Commodity and service group:															
Commodities	144.4	149.2	149.3	148.6	150.3	150.4	150.6	150.0	150.0	150.6	150.7	151.9	152.9	152.1	150.4
Food and beverages	164.6	168.4	169.4	169.2	169.4	169.6	169.5	170.5	171.4	171.8	172.2	172.4	172.9	173.4	174.0
Commodities less food and beverages	132.5	137.7	137.7	136.4	138.8	138.9	139.3	137.8	137.4	138.1	138.0	139.7	140.8	139.4	136.5
Nondurables less food and beverages	137.5	147.4	147.5	145.6	149.9	149.9	150.2	147.2	146.4	147.7	147.9	151.0	153.5	151.3	146.3
Apparel	131.3	129.6	124.5	125.3	130.4	132.8	131.8	127.8	125.4	128.4	132.2	131.9	129.8	126.3	122.6
Nondurables less food, beverages, and apparel	146.0	162.5	165.4	162.0	165.9	164.7	165.7	163.1	163.2	163.7	161.9	167.0	172.0	170.4	164.5
Durables	126.0	125.4	125.2	124.7	124.8	125.0	125.5	125.9	125.9	125.9	125.5	125.4	124.9	124.5	124.2
Services	188.8	195.3	196.3	197.0	197.2	197.6	197.6	198.0	200.2	201.0	201.8	201.9	202.5	204.0	204.5
Rent of shelter[3]	195.0	201.3	202.1	202.7	202.6	203.3	203.2	203.1	204.5	205.7	207.2	207.4	207.8	209.0	209.7
Transporatation services	190.7	196.1	196.5	197.4	197.2	197.0	198.0	198.3	199.1	200.3	200.2	200.1	200.4	202.0	202.6
Other services	223.1	229.9	229.9	231.3	231.5	232.6	232.4	233.0	234.1	234.8	235.4	236.2	236.4	236.7	237.7
Special indexes:															
All items less food	167.0	173.0	173.6	173.5	174.6	174.9	175.0	174.7	175.9	176.6	177.1	177.8	178.6	179.0	178.2
All items less shelter	160.2	165.7	166.2	166.0	167.4	167.5	167.7	167.5	168.6	169.1	169.2	170.1	170.9	171.0	170.0
All items less medical care	162.0	167.3	167.9	167.9	168.8	169.1	169.2	169.0	170.1	170.8	171.2	171.8	172.6	172.9	172.3
Commodities less food	134.0	139.2	139.2	138.0	140.3	140.4	140.8	139.3	139.0	139.7	139.6	141.2	142.4	141.0	138.2
Nondurables less food	139.4	149.1	149.3	147.5	151.5	151.6	151.8	149.0	148.3	149.6	149.8	152.8	155.1	153.1	148.3
Nondurables less food and apparel	147.5	162.9	165.7	162.6	166.2	165.1	166.0	163.6	163.9	164.3	162.7	167.4	172.0	170.6	165.2
Nondurables	151.2	158.2	158.4	157.6	160.0	160.1	160.2	159.1	159.1	160..0	160.3	162.0	163.6	162.7	160.3
Services less rent of shelter[3]	195.8	202.9	204.2	205.0	205.7	205.8	205.9	206.9	210.0	210.5	210.6	210.6	211.4	213.3	213.7
Services less medical care services	182.7	188.9	189.9	190.5	190.7	191.1	191.1	191.5	193.6	194.3	195.1	195.2	195.7	197.2	197.8
Energy	106.6	124.6	129.7	125.9	130.6	129.3	129.0	128.1	132.5	132.0	129.5	133.1	140.1	140.5	132.4
All items less energy	174.4	178.6	178.7	179.1	179.6	180.1	180.3	180.2	181.0	181.8	182.6	182.9	182.9	183.3	183.6
All items less food and energy	177.0	181.3	181.3	181.7	182.3	182.8	183.0	182.8	183.5	184.4	185.3	185.6	185.5	185.9	186.2
Commodities less food and energy	144.1	144.9	143.8	143.7	145.1	145.6	146.0	145.1	144.8	145.9	146.2	146.6	145.7	144.9	144.4
Energy commodities	100.0	129.5	135.0	127.9	135.2	133.6	133.8	129.3	128.6	129.1	125.4	133.8	145.6	141.1	125.6
Services less energy	195.7	202.1	202.7	203.5	203.5	204.1	204.2	204.4	205.7	206.8	207.7	208.0	208.4	209.4	210.1
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items	163.2	168.9	169.4	169.3	170.4	170.6	170.9	170.7	171.7	172.4	172.6	173.5	174.4	174.6	173.8
All items (1967 = 100)	486.2	503.1	504.7	504.2	507.6	508.2	509.0	508.5	511.6	513.4	514.2	516.7	519.4	520.0	517.8
Food and beverages	163.8	167.7	168.0	168.6	168.8	169.0	168.8	169.8	170.8	171.2	171.6	171.9	172.3	172.8	173.4
Food	163.4	167.2	167.6	189.9	168.3	168.5	168.3	169.3	170.3	170.8	171.1	171.4	171.9	172.4	173.0
Food at home	163.0	166.8	167.3	156.8	168.1	168.1	167.8	169.1	170.3	170.8	171.1	171.3	171.8	172.4	173.0
Cereals and bakery products	184.7	188.0	189.2	161.0	188.4	189.9	188.6	190.4	190.9	191.7	191.7	192.2	192.9	193.9	194.5
Meats, poultry, fish, and eggs	147.6	154.1	155.4	202.5	156.6	156.4	155.3	156.3	157.9	159.2	160.0	160.7	160.6	161.4	162.1
Dairy and related products[1]	159.4	160.5	160.5	138.2	161.6	161.9	161.4	161.5	163.8	163.5	163.1	163.5	164.7	166.9	168.3
Fruits and vegetables	201.8	203.4	200.0	201.5	203.6	204.7	205.8	213.3	210.9	210.1	209.8	211.7	211.5	210.5	209.5
Nonalcoholic beverages and beverage materials	133.2	136.9	137.5	137.4	137.1	136.6	137.1	135.8	138.7	139.3	138.8	138.2	137.2	137.8	138.0
Other foods at home	152.8	155.1	156.0	156.2	156.1	155.3	155.4	155.8	157.3	157.3	158.2	157.1	159.1	159.1	160.0
Sugar and sweets	152.2	153.9	154.2	154.4	154.4	153.8	152.7	153.3	155.4	155.6	155.6	153.7	155.8	155.5	156.0
Fats and oils	147.9	147.2	147.9	148.6	148.5	149.4	146.3	149.9	152.8	152.4	153.0	151.4	154.3	156.4	157.4
Other foods	168.8	172.3	173.5	173.6	173.5	172.0	173.4	173.0	174.0	174.1	175.4	174.6	176.5	176.0	177.2
Other miscellaneous foods[1,2]	104.6	107.1	108.4	109.0	107.5	106.3	109.6	108.6	108.5	108.5	108.5	108.4	108.7	108.0	109.9
Food away from home[1]	165.0	169.0	169.1	169.5	170.0	170.3	170.5	170.8	171.4	171.8	172.3	172.7	173.1	173.5	174.0
Other food away from home[1,2]	105.1	109.2	108.8	109.6	110.4	110.9	111.2	111.4	111.5	111.6	111.8	112.0	112.5	112.8	114.0
Alcoholic beverages	168.8	173.8	174.4	174.7	174.4	174.8	175.6	175.8	176.5	177.0	177.2	177.6	178.0	178.4	179.2
Housing	160.0	165.4	166.4	166.6	167.3	167.5	167.6	168.1	170.2	170.5	171.0	171.0	171.7	173.0	173.3
Shelter	181.6	187.4	187.9	188.4	188.7	189.3	189.5	189.6	190.6	191.5	192.6	192.9	193.5	194.4	195.0
Rent of primary residence	177.1	183.4	183.4	184.1	184.8	185.6	186.2	187.0	187.7	188.3	189.0	189.6	190.4	191.0	191.7
Lodging away from home[2]	122.2	117.3	123.1	122.5	118.3	118.6	113.9	108.7	113.8	118.5	123.8	121.2	119.9	123.2	123.7
Owners' equivalent rent of primary residence[3]	175.7	180.8	180.8	181.3	181.9	182.4	183.0	183.5	184.1	184.5	185.2	185.7	186.3	187.0	187.5
Tenants' and household insurance[1,2]	101.6	103.9	104.4	104.2	104.4	104.4	104.7	104.9	105.2	105.3	105.6	105.8	106.9	107.2	106.7
Fuels and utilities	128.7	137.4	141.0	140.4	143.4	142.5	142.0	144.6	153.2	151.5	149.9	148.8	150.8	155.2	154.4
Fuels	113.0	121.8	125.7	125.0	128.2	127.2	126.5	129.3	138.6	136.6	134.8	133.6	135.7	140.5	139.5
Fuel oil and other fuels	91.7	128.8	120.1	120.1	133.1	136.7	139.3	144.1	150.1	145.0	138.0	133.9	131.5	129.2	123.1
Gas (piped) and electricity	120.4	127.5	132.5	131.8	134.4	133.0	132.1	134.8	144.8	143/0	141.5	140.4	142.9	148.5	147.8
Household furnishings and operations	124.7	125.5	125.7	125.7	126.1	125.8	126.0	125.6	125.7	125.9	125.9	126.0	125.7	125.9	125.8
Apparel	130.1	128.3	123.6	124.0	128.7	131.3	130.5	126.6	124.1	127.0	130.6	130.5	128.5	125.2	121.9
Men's and boys' apparel	131.2	129.7	126.6	126.8	128.8	130.3	131.3	128.0	125.8	126.9	127.6	128.3	129.2	126.3	122.9
Women's and girls' apparel	121.3	119.3	112.2	113.2	121.5	125.5	122.6	117.5	113.2	118.4	125.2	124.7	120.2	115.6	110.2
Infants' and toddlers' apparel[1]	130.3	132.3	129.8	128.4	129.0	132.6	132.7	130.0	129.0	131.0	133.3	133.2	132.0	128.6	126.2
Footwear	126.2	124.2	120.9	121.5	124.8	125.5	125.7	124.0	121.5	122.4	125.2	125.2	124.5	122.1	121.4
Transportation	143.4	152.8	154.4	152.3	154.2	154.0	154.9	153.9	154.0	154.5	153.3	155.8	159.2	157.9	153.4
Private transportation	140.7	150.1	151.6	149.3	151.4	151.3	152.2	151.2	151.2	151.7	150.5	153.2	156.6	155.1	150.4
New and used motor vehicles[2]	100.4	101.4	101.1	100.9	101.0	101.4	102.2	102.8	102.9	102.8	102.5	102.4	102.0	101.7	101.4

See footnotes at end of table.

28. Continued—Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
New vehicles	144.0	143.9	143.7	143.1	142.5	142.7	143.7	144.6	144.8	144.5	143.8	143.8	143.4	142.7	142.3
Used cars and trucks[1]	153.3	157.1	156.6	156.5	157.5	159.3	160.7	161.6	161.7	161.7	161.1	160.9	160.2	160.0	159.3
Motor fuel	100.8	129.5	136.2	128.0	135.3	133.1	133.2	127.7	126.9	127.8	124.1	134.0	147.4	142.1	124.9
Gasoline (all types)	100.2	128.8	135.5	127.3	134.6	132.3	132.4	126.9	126.2	127.1	123.4	133.3	146.7	141.1	124.2
Motor vehicle parts and equipment	100.0	100.9	100.8	100.7	100.9	101.0	101.8	102.3	103.0	103.4	104.0	103.5	103.6	103.6	104.3
Motor vehicle maintenance and repair	173.3	178.8	178.7	179.6	180.2	180.9	181.4	181.5	182.1	183.1	183.3	183.4	184.1	184.4	185.0
Public transportation	193.1	203.4	206.9	208.7	206.4	202.4	203.2	203.7	204.3	205.8	204.2	202.7	203.5	209.5	209.5
Medical care	249.7	259.9	260.6	261.7	262.2	262.8	263.1	263.8	266.3	268.1	269.1	269.9	270.4	271.5	272.0
Medical care commodities	226.8	233.6	234.2	234.6	235.0	235.2	235.5	236.5	237.8	239.1	240.2	241.0	241.7	243.2	243.6
Medical care services	254.9	265.9	266.6	267.9	268.5	269.2	269.4	270.1	272.8	274.7	275.7	276.5	277.0	278.0	278.5
Professional services	230.8	239.6	240.3	240.9	241.3	241.8	241.7	242.3	244.9	246.4	247.0	247.8	248.0	248.7	249.0
Hospital and related services	295.5	313.2	314.2	317.1	318.2	319.2	320.3	320.9	323.9	326.6	328.3	329.1	330.6	332.0	333.5
Recreation[2]	101.3	102.4	102.7	102.9	102.8	102.8	102.7	102.6	103.0	103.1	103.0	103.7	103.7	103.5	103.7
Video and audio[1,2]	100.5	100.7	100.9	101.3	101.1	100.7	100.6	100.3	100.8	101.2	101.0	101.2	101.1	100.7	101.1
Education and communication[2]	101.5	102.7	102.2	103.0	102.9	103.7	103.2	103.7	104.0	104.1	104.4	104.2	104.1	104.5	104.9
Education[2]	107.2	112.8	112.1	113.2	115.1	115.4	115.6	115.7	116.0	116.2	116.3	116.4	116.7	117.2	117.6
Educational books and supplies	264.1	283.3	281.5	283.6	288.6	289.0	288.6	289.2	292.9	294.1	294.7	294.7	294.5	298.2	299.3
Tuition, other school fees, and child care	302.8	318.2	316.2	319.2	324.7	325.7	326.3	326.5	327.0	327.4	327.9	328.2	329.1	330.3	331.3
Communication[1,2]	96.9	94.6	94.3	94.8	93.1	94.2	93.3	94.1	94.4	94.4	94.8	94.4	94.0	94.3	94.8
Information and information processing[1,2]	96.5	94.1	93.9	94.4	92.6	93.8	92.8	93.6	93.8	93.7	94.1	93.8	93.4	93.6	94.0
Telephone services[1,2]	100.2	98.7	98.4	99.1	97.1	98.6	97.6	98.6	99.0	98.9	99.5	99.2	98.8	99.2	99.7
Information and information processing other than telephone services[1,4]	31.6	26.8	26.6	26.1	25.9	25.5	25.1	24.6	24.0	23.8	23.3	22.8	22.4	22.2	22.0
Personal computers and peripheral equipment[1,2]	53.1	40.5	39.8	39.1	38.5	37.8	36.7	35.9	34.3	33.4	31.8	31.1	29.9	29.4	28.7
Other goods and services	261.9	276.5	277.9	276.8	280.9	278.2	282.3	279.2	281.5	283.2	283.5	288.2	286.8	287.9	293.8
Tobacco and smoking products	356.2	395.2	400.9	394.2	408.2	397.0	411.3	396.9	404.6	409.2	408.5	424.8	419.8	421.6	441.9
Personal care[1]	161.3	165.5	165.5	166.1	166.5	166.8	167.1	167.7	168.1	168.5	169.0	169.4	169.3	169.9	170.6
Personal care products[1]	152.5	154.2	154.1	155.0	155.1	153.9	154.2	155.8	155.7	155.7	155.9	156.0	153.8	155.4	155.9
Personal care services[1]	171.7	178.6	178.6	179.7	180.3	180.8	181.1	181.7	182.1	182.4	182.8	183.9	184.7	184.8	185.4
Miscellaneous personal services	243.1	251.9	252.2	253.0	253.4	254.5	255.1	255.3	257.0	258.4	258,3	260.0	260.7	261.6	263.2
Commodity and service group:															
Commodities	144.7	149.8	150.1	149.3	151.0	151.0	151.4	150.6	150.8	151.4	151.4	152.8	153.9	153.0	151.2
Food and beverages	163.8	167.7	168.0	168.6	168.8	169.0	168.8	169.8	170.8	171.2	171.6	171.9	172.3	172.8	173.4
Commodities less food and beverages	133.2	139.0	139.2	137.7	140.2	140.2	140.8	139.1	138.8	139.5	139.3	141.2	142.6	141.1	138.0
Nondurables less food and beverages	138.1	149.1	149.7	147.2	151.8	151.6	152.1	148.6	148.1	149.4	149.3	153.1	156.2	153.6	148.2
Apparel	130.1	128.3	123.6	124.0	128.7	131.3	130.5	126.6	124.1	127.0	130.6	130.5	128.5	125.2	121.9
Nondurables less food, beverages, and apparel	147.2	165.3	168.7	164.6	169.3	167.6	168.8	165.5	166.0	166.5	164.4	170.5	176.3	174.1	167.3
Durables	126.0	125.8	125.6	125.2	125.3	125.6	126.2	126.6	126.6	126.6	126.2	126.0	125.5	125.2	124.8
Services	185.3	191.6	192.2	193.0	193.4	193.9	194.0	194.5	196.6	197.2	197.8	198.0	198.7	200.1	200.6
Rent of shelter[3]	174.9	180.5	181.0	181.5	181.7	182.3	182.5	182.6	183.6	184.4	185.5	185.8	186.3	187.2	187.8
Transporatation services	187.9	192.9	193.0	193.8	193.7	193.9	195.0	195.2	196.0	197.2	197.2	197.2	197.6	198.9	199.5
Other services	219.6	225.9	225.9	227.3	227.3	228.4	228.1	228.9	229.9	230.6	231.2	231.9	232.2	232.6	233.6
Special indexes:															
All items less food	163.1	169.1	169.6	169.4	170.7	170.9	171.3	170.9	171.9	172.5	172.8	173.8	174.7	174.9	173.9
All items less shelter	158.1	163.8	164.3	163.9	165.4	165.5	165.7	165.5	166.5	167.0	167.0	168.0	169.1	169.0	167.8
All items less medical care	159.2	164.7	165.1	165.0	166.2	166.4	166.6	166.4	167.4	168.0	168.2	169.1	170.0	170.2	169.4
Commodities less food	134.6	140.4	140.6	139.1	141.6	141.6	142.2	140.6	140.3	141.0	140.8	142.7	144.1	142.6	139.6
Nondurables less food	140.0	150.7	151.2	148.9	153.3	153.1	153.6	150.3	149.9	151.1	151.1	154.7	157.6	155.3	150.1
Nondurables less food and apparel	148.4	165.4	168.7	164.9	169.2	167.7	168.8	165.8	166.3	166.8	164.9	170.5	175.9	173.9	167.7
Nondurables	151.3	158.9	159.4	158.3	160.8	160.8	161.0	159.7	159.9	160.8	160.9	163.0	164.8	163.8	161.2
Services less rent of shelter[3]	174.1	180.1	181.3	181.9	182.5	182.7	182.8	183.7	186.6	186.9	187.0	187.0	187.8	189.6	189.9
Services less medical care services	179.5	185.4	186.0	186.6	187.2	187.6	187.7	188.3	190.3	190.8	191.4	191.6	192.3	193.6	194.2
Energy	106.1	124.8	130.1	125.7	130.9	129.3	129.0	127.6	131.8	131.3	128.6	132.9	140.6	140.3	131.3
All items less energy	171.1	175.1	174.9	175.3	176.0	176.5	176.8	176.8	177.4	178.2	178.8	179.2	179.2	179.5	179.8
All items less food and energy	173.1	177.1	176.8	177.2	178.0	178.6	179.0	178.7	179.3	180.1	180.9	181.3	181.2	181.4	181.7
Commodities less food and energy	144.3	145.4	144.5	144.2	145.7	146.1	146.7	145.8	145.5	146.2	146.8	147.3	146.4	145.6	145.4
Energy commodities	100.3	129.7	135.4	127.7	135.4	133.5	133.8	128.9	128.5	129.1	125.1	134.2	146.6	141.5	125.0
Services less energy	192.6	198.7	198.8	199.5	200.0	200.6	200.8	201.1	202.2	203.1	204.0	204.4	204.8	205.7	206.3

[1] Not seasonally adjusted.

[2] Indexes on a December 1997 = 100 base.

[3] Indexes on a December 1982 = 100 base.

[4] Indexes on a December 1988 = 100 base.

Dash indicates data not available.

NOTE: Index applied to a month as a whole, not to any specific date.

29. Consumer Price Index: U.S. city average and available local area data: all items

[1982–84 = 100, unless otherwise indicated]

Area	Pricing schedule[1]	2000		2001					Urban Wage Earners 2000		2001				
		June	July	Mar.	Apr.	May	June	July	June	July	Mar.	Apr.	May	June	July
U.S. city average	M	172.4	172.8	176.2	176.9	177.7	178.0	177.5	169.2	169.4	172.6	173.5	174.4	174.6	173.8
Region and area size[2]															
Northeast urban	M	179.0	179.8	183.7	184.2	184.6	185.3	185.0	175.9	176.7	180.3	180.9	181.6	182.1	181.8
Size A—More than 1,500,000	M	179.7	180.5	184.6	185.0	185.6	186.4	186.2	175.7	176.5	180.2	180.7	181.6	182.3	182.1
Size B/C—50,000 to 1,500,000[3]	M	107.7	108.2	110.4	110.7	110.8	111.0	110.7	107.3	107.7	109.8	110.2	110.4	110.5	110.1
Midwest urban[4]	M	169.7	168.8	171.7	172.8	174.2	173.8	172.5	166.2	165.1	167.8	169.0	170.7	170.1	168.4
Size A—More than 1,500,000	M	171.3	170.5	173.3	174.4	175.6	175.3	174.3	166.9	165.9	168.5	169.6	171.0	170.5	169.3
Size B/C—50,000 to 1,500,000[3]	M	108.4	107.7	109.7	110.4	111.6	111.2	110.0	108.7	107.7	109.6	110.6	112.0	111.4	109.8
Size D—Nonmetropolitan (less than 50,000)	M	163.1	163.2	165.9	166.7	167.9	167.5	166.1	161.8	161.7	164.3	165.1	166.4	165.8	164.2
South urban	M	167.5	168.0	170.6	171.4	171.7	172.2	171.6	165.8	166.3	168.7	169.6	170.0	170.3	169.7
Size A—More than 1,500,000	M	167.2	167.9	170.9	171.6	171.9	172.7	172.5	165.0	165.7	168.4	169.3	169.7	170.5	170.3
Size B/C—50,000 to 1,500,000[3]	M	107.6	107.8	109.4	109.9	110.1	110.3	109.8	107.4	107.6	109.1	109.7	109.9	110.0	109.5
Size D—Nonmetropolitan (less than 50,000)	M	167.1	167.7	169.5	170.6	171.0	171.4	170.1	168.1	168.6	170.4	171.8	172.0	172.3	170.8
West urban	M	174.3	175.2	180.1	180.4	181.3	182.0	182.0	169.9	170.8	175.3	175.8	176.7	177.3	177.2
Size A—More than 1,500,000	M	175.8	176.8	182.0	182.5	183.4	184.4	184.2	169.6	170.6	175.4	176.0	177.0	177.9	177.8
Size B/C—50,000 to 1,500,000[3]	M	107.7	108.1	110.7	110.6	111.1	111.2	111.4	107.4	107.9	110.4	110.4	110.9	110.9	111.0
Size classes:															
A[5]	M	156.4	156.8	160.3	160.9	161.6	162.1	161.8	155.1	155.4	158.6	159.3	160.2	160.6	160.2
B/C[3]	M	107.8	107.9	109.8	110.2	110.7	110.8	110.3	107.7	107.7	109.5	110.1	110.7	110.6	109.9
D	M	167.5	167.8	170.3	171.2	171.9	172.1	171.0	166.8	167.0	169.5	170.5	171.1	171.2	169.8
Selected local areas[6]															
Chicago–Gary–Kenosha, IL–IN–WI	M	176.0	174.6	177.1	178.4	179.8	179.2	177.7	170.4	168.9	171.4	172.6	174.0	173.4	171.7
Los Angeles–Riverside–Orange County, CA	M	171.0	171.7	176.2	176.6	177.5	178.9	178.3	164.3	165.0	169.1	169.6	170.5	171.9	171.3
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA	M	182.0	182.8	186.4	186.6	187.3	188.3	187.8	177.6	178.4	181.8	181.9	183.0	183.8	183.5
Boston–Brockton–Nashua, MA–NH–ME–CT	1	–	183.2	190.9	–	190.9	–	192.1	–	182.3	189.3	–	190.1	–	191.3
Cleveland–Akron, OH	1	–	168.3	172.3	–	173.7	–	173.4	–	160.5	163.9	–	165.6	–	164.9
Dallas–Ft Worth, TX	1	–	166.2	168.9	–	169.4	–	171.5	–	166.2	168.5	–	169.1	–	171.6
Washington–Baltimore, DC–MD–VA–WV[7]	1	–	108.4	109.7	–	110.1	–	110.8	–	108.2	109.4	–	109.9	–	110.6
Atlanta, GA	2	171.3	–	–	176.6	–	177.8	–	168.9	–	–	173.8	–	175.4	–
Detroit–Ann Arbor–Flint, MI	2	170.9	–	–	174.5	–	175.8	–	165.8	–	–	169.1	–	170.4	–
Houston–Galveston–Brazoria, TX	2	154.1	–	–	159.5	–	159.6	–	153.1	–	–	157.8	–	158.4	–
Miami–Ft. Lauderdale, FL	2	168.0	–	–	172.8	–	173.5	–	165.7	–	–	170.4	–	171.2	–
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD	2	176.6	–	–	181.2	–	182.5	–	176.1	–	–	180.7	–	182.0	–
San Francisco–Oakland–San Jose, CA	2	179.1	–	–	189.1	–	190.9	–	175.2	175.2	–	184.9	–	186.9	–
Seattle–Tacoma–Bremerton, WA	2	179.2	–	–	184.2	–	186.3	–	174.5	–	–	179.4	–	181.3	–

[1] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:
M—Every month.
1—January, March, May, July, September, and November.
2—February, April, June, August, October, and December.

[2] Regions defined as the four Census regions.

[3] Indexes on a December 1996 = 100 base.

[4] The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

[5] Indexes on a December 1986 = 100 base.

[6] In addition, the following metropolitan areas are published semiannually and appear in tables 34 and 39 of the January and July issues of the *CPI Detailed Report*: Anchorage, AK; Cincinnati–Hamilton, OH–KY–IN; Denver–Boulder–Greeley, CO; Honolulu, HI; Kansas City, MO–KS; Milwaukee–Racine, WI; Minneapolis–St. Paul, MN–WI; Pittsburgh, PA, Portland–Salem, OR–WA; St Louis, MO–IL; San Diego, CA; Tampa–St. Petersburg–Clearwater, FL.

[7] Indexes on a November 1996 = 100 base.

Dash indicates data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Each local index has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses. Index applies to a month as a whole, not to any specific date.

30. Annual data: Consumer Price Index, U.S. city average, all items and major groups

[1982–84 = 100]

Series	1992	1993	1994	1995	1996	1997	1998	1999	2000
Consumer Price Index for All Urban Consumers:									
All items:									
Index	140.3	144.5	148.2	152.4	156.9	160.5	163.0	166.6	172.2
Percent change	3.0	3.0	2.6	2.8	3.0	2.3	1.6	2.2	3.4
Food and beverages:									
Index	138.7	141.6	144.9	148.9	153.7	157.7	161.1	164.6	168.4
Percent change	1.4	2.1	2.3	2.8	3.2	2.6	2.2	2.2	2.3
Housing:									
Index	137.5	141.2	144.8	148.5	152.8	156.8	160.4	163.9	169.6
Percent change	2.9	2.7	2.5	2.6	2.9	2.6	2.3	2.2	3.5
Apparel:									
Index	131.9	133.7	133.4	132.0	131.7	132.9	133.0	131.3	129.6
Percent change	2.5	1.4	–.2	–1.0	–.2	.9	.1	–1.3	–1.3
Transportation:									
Index	126.5	130.4	134.3	139.1	143.0	144.3	141.6	144.4	153.3
Percent change	2.2	3.1	3.0	3.6	2.8	0.9	–1.9	2.0	6.2
Medical care:									
Index	190.1	201.4	211.0	220.5	228.2	234.6	242.1	250.6	260.8
Percent change	7.4	5.9	4.8	4.5	3.5	2.8	3.2	3.5	4.1
Other goods and services:									
Index	183.3	192.9	198.5	206.9	215.4	224.8	237.7	258.3	271.1
Percent change	6.8	5.2	2.9	4.2	4.1	4.4	5.7	8.7	5.0
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	138.2	142.1	145.6	149.8	154.1	157.6	159.7	163.2	168.9
Percent change	2.9	2.8	2.5	2.9	2.9	2.3	1.3	2.2	3.5

31. Producer Price Indexes, by stage of processing

1982 = 100]

Grouping	Annual average		2000						2001						
	1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Finished goods	133.0	138.0	138.6	138.2	139.4	140.1	140.0	139.7	141.2	141.5	141.0	141.7	142.5	142.1	140.7
Finished consumer goods	132.0	138.2	139.0	138.6	140.1	140.7	140.5	140.1	141.9	142.5	141.9	142.7	143.8	143.3	141.5
Finished consumer foods	135.1	137.2	137.5	137.2	137.4	138.0	138.2	137.9	138.4	139.5	140.9	141.6	141.8	141.9	141.2
Finshed consumer goods excluding foods	130.5	138.4	139.5	139.0	141.1	141.6	141.3	140.8	143.3	143.6	142.1	142.9	144.5	143.7	141.4
Nondurable goods less food	127.9	138.7	140.5	140.0	143.0	142.6	142.1	141.5	144.9	145.9	143.8	144.9	147.3	146.5	143.1
Durable goods	133.0	133.9	133.1	132.7	132.5	135.3	135.4	135.3	135.2	134.2	134.1	134.2	133.8	133.2	133.2
Capital equipment	137.6	138.8	138.6	138.5	138.6	139.8	139.9	139.9	140.2	139.7	139.7	140.0	139.7	139.6	139.8
Intermediate materials, supplies, and components	123.2	129.2	130.3	129.9	131.1	130.8	130.5	130.6	131.5	131.3	130.8	130.6	131.2	131.4	130.3
Materials and components for manufacturing	124.6	128.1	128.9	128.6	128.5	128.4	128.0	128.1	128.6	128.8	128.9	128.7	128.6	128.3	127.5
Materials for food manufacturing	120.8	119.2	120.5	119.4	119.0	119.1	118.9	119.8	120.4	120.3	122.3	122.3	124.6	125.7	126.1
Materials for nondurable manufacturing	124.9	132.6	134.5	133.9	133.6	133.7	133.3	133.5	135.0	136.1	135.8	135.2	134.2	133.4	131.9
Materials for durable manufacturing	125.1	129.0	129.4	129.0	129.3	128.8	127.5	128.0	127.2	127.0	126.7	126.0	126.9	126.5	125.3
Components for manufacturing	125.7	126.2	126.3	126.3	126.4	126.4	126.5	126.1	126.4	126.2	126.4	126.6	126.4	126.4	126.2
Materials and components for construction	148.9	150.7	150.8	150.4	150.3	150.2	150.1	149.9	149.6	150.0	150.2	150.4	151.6	151.7	151.0
Processed fuels and lubricants	84.6	102.0	105.0	104.5	110.5	109.2	108.8	108.3	111.4	109.9	106.9	105.9	108.1	110.2	106.8
Containers	142.5	151.6	153.3	153.0	153.3	153.4	153.0	153.0	153.0	153.0	152.8	153.2	153.9	154.1	153.6
Supplies	134.2	136.9	137.3	137.0	137.4	137.7	138.0	138.1	138.9	138.5	138.7	139.0	139.0	138.8	138.8
Crude materials for further processing	98.2	120.6	122.7	118.3	126.0	130.3	128.4	136.2	155.0	133.2	131.5	132.9	130.9	122.8	116.1
Foodstuffs and feedstuffs	98.7	100.2	99.3	95.5	97.6	99.5	100.4	103.9	105.3	104.5	108.9	109.1	110.3	109.7	109.6
Crude nonfood materials	94.3	130.4	134.4	129.7	141.0	146.7	143.0	153.5	183.5	148.2	142.2	144.5	140.4	127.4	116.3
Special groupings:															
Finished goods, excluding foods	132.3	138.1	138.8	138.4	139.9	140.6	140.4	140.1	141.9	142.0	140.9	141.6	142.6	142.0	140.5
Finished energy goods	78.8	94.1	97.3	95.9	100.6	99.6	98.9	97.9	101.9	103.6	99.7	101.2	104.1	102.7	97.0
Finished goods less energy	143.0	144.9	144.7	144.7	144.8	146.0	146.1	145.9	146.7	146.6	147.1	147.5	147.7	147.6	147.5
Finished consumer goods less energy	145.2	147.4	147.3	147.3	147.5	148.6	148.7	148.5	149.4	149.5	150.2	150.6	151.6	150.9	150.7
Finished goods less food and energy	146.1	148.0	147.6	147.7	147.8	149.2	149.2	149.1	150.0	149.4	149.5	149.8	150.0	149.9	149.9
Finished consumer goods less food and energy	151.7	154.0	153.5	153.8	154.0	155.5	155.4	155.3	156.5	155.9	156.1	156.4	156.9	156.7	156.8
Consumer nondurable goods less food and energy	166.3	169.8	169.6	170.4	170.9	171.3	171.2	171.0	173.2	173.2	173.5	174.0	175.4	175.5	175.5
Intermediate materials less foods and feeds	123.9	130.1	131.2	131.0	132.2	131.9	131.5	131.5	132.4	132.3	131.7	131.6	132.1	132.3	131.0
Intermediate foods and feeds	111.1	111.7	112.7	110.6	111.1	111.5	111.7	113.5	115.1	113.6	114.1	114.0	114.9	116.3	117.1
Intermediate energy goods	84.3	101.7	104.6	104.2	110.1	108.8	107.6	107.9	110.9	109.5	106.4	105.5	107.6	109.7	106.3
Intermediate goods less energy	131.7	135.0	135.7	135.3	135.4	135.4	135.2	135.3	135.8	135.8	136.0	136.0	136.1	135.9	135.3
Intermediate materials less foods and energy	133.1	136.6	137.2	137.0	137.0	137.0	136.8	136.8	137.1	137.3	137.4	137.4	137.5	137.2	136.5
Crude energy materials	78.5	122.1	127.6	122.4	136.7	144.8	140.9	154.7	193.4	148.3	141.0	145.2	139.8	123.1	109.0
Crude materials less energy	107.9	111.7	110.8	107.4	109.2	110.1	109.9	112.4	113.7	112.4	115.2	114.3	115.3	114.8	114.3
Crude nonfood materials less energy	135.2	145.2	144.3	141.9	142.9	141.0	137.8	137.5	138.7	136.1	134.6	130.8	130.9	130.6	129.4

32. Producer Price Indexes for the net output of major industry groups

[December 1984 = 100, unless otherwise indicated]

SIC	Industry	Annual average		2000						2001						
		1999	2000	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
–	**Total mining industries**	78.0	113.5	118.1	113.8	124.7	131.8	128.9	139.6	170.8	138.2	130.7	132.2	127.5	115.5	103.4
10	Metal mining	70.3	73.8	73.9	73.4	75.2	75.1	73.3	73.5	73.5	72.4	73.1	70.0	71.4	71.0	70.4
12	Coal mining (12/85 = 100)	87.3	84.8	85.6	83.3	83.5	83.6	84.1	84.8	83.6	90.8	90.3	90.6	92.2	87.7	90.9
13	Oil and gas extraction (12/85 = 100)	78.5	126.8	132.8	127.4	141.9	151.5	147.7	162.0	204.4	159.4	149.3	151.5	144.9	129.6	112.9
14	Mining and quarrying of nonmetallic minerals, except fuels	134.0	137.0	137.6	137.8	138.0	138.0	138.0	138.2	139.3	140.1	140.8	140.8	140.7	141.8	141.6
–	**Total manufacturing industries**	128.3	133.5	133.9	133.5	134.7	134.9	134.9	134.4	134.7	134.7	134.6	135.4	136.3	136.0	134.6
20	Food and kindred products	126.3	128.5	129.4	128.7	128.5	128.7	128.8	129.6	130.1	130.4	131.7	132.5	133.2	133.8	133.9
21	Tobacco manufactures	325.7	345.8	342.3	350.4	351.1	351.6	351.6	351.8	372.4	372.4	372.3	372.1	391.2	391.7	391.1
22	Textile mill products	116.3	116.7	116.7	116.9	116.6	116.8	117.0	117.5	117.4	117.9	117.0	117.0	117.1	117.2	116.9
23	Apparel and other finished products made from fabrics and similar materials	125.3	125.7	125.9	125.9	125.9	126.0	125.7	125.9	125.7	125.7	125.7	125.9	125.8	125.7	125.9
24	Lumber and wood products, except furniture	161.8	158.1	157.6	155.7	155.3	155.0	154.5	154.2	153.2	153.8	154.5	154.7	160.5	161.3	158.2
25	Furniture and fixtures	141.3	143.3	143.5	143.6	143.5	143.7	143.8	143.8	144.2	144.3	144.8	144.7	144.9	145.2	145.3
26	Paper and allied products	136.4	145.8	147.3	147.3	147.7	147.6	147.5	147.0	147.4	147.0	147.0	147.0	146.9	146.8	146.4
27	Printing, publishing, and allied industries	177.6	182.9	183.2	183.6	183.6	184.9	185.0	185.1	186.8	187.2	187.6	188.4	188.8	188.4	188.6
28	Chemicals and allied products	149.7	156.7	157.4	157.5	158.3	158.6	158.3	159.0	160.4	161.6	161.9	161.4	160.4	160.0	158.8
29	Petroleum refining and related products	76.8	112.8	115.7	112.6	125.1	121.8	121.9	114.4	112.5	112.0	107.3	114.1	120.9	116.9	103.8
30	Rubber and miscellaneous plastics products	122.2	124.6	125.0	124.7	125.4	125.3	126.5	124.8	126.0	126.1	126.8	127.4	126.6	126.4	126.5
31	Leather and leather products	136.5	137.9	137.5	137.8	138.4	138.4	138.8	138.9	139.1	140.6	140.9	142.8	142.9	142.6	141.9
32	Stone, clay, glass, and concrete products	132.6	134.6	134.8	134.5	134.8	134.5	134.3	134.1	134.4	135.0	135.4	135.6	136.0	135.7	135.9
33	Primary metal industries	115.8	119.8	120.3	120.4	120.5	120.2	119.0	119.2	118.5	118.0	117.4	116.8	116.9	116.5	116.1
34	Fabricated metal products, except machinery and transportation equipment	129.1	130.3	130.3	130.4	130.5	130.6	130.5	130.5	130.6	130.7	130.8	131.2	131.1	131.1	131.1
35	Machinery, except electrical	117.3	117.5	117.6	117.6	117.6	117.6	117.7	117.7	117.7	117.8	117.8	118.0	118.0	118.1	118.1
36	Electrical and electronic machinery, equipment, and supplies	109.5	108.3	108.5	108.1	108.1	108.0	107.9	107.7	107.7	107.6	107.5	107.5	107.4	107.3	106.9
37	Transportation	134.5	136.8	136.1	135.7	135.7	138.4	138.6	138.4	138.7	137.6	137.9	138.1	137.4	137.1	137.3
38	Measuring and controlling instruments; photographic, medical, and optical goods; watches and clocks	125.7	126.2	126.2	126.2	126.3	126.4	121.8	126.4	126.9	127.1	126.9	126.9	127.3	127.4	127.2
39	Miscellaneous manufacturing industries (12/85 = 100)	130.3	130.9	130.9	131.0	131.0	131.0	131.2	131.3	131.7	131.9	132.3	132.2	132.5	132.5	132.7
	Service industries:															
42	Motor freight transportation and warehousing (06/93 = 100)	114.8	119.4	118.9	120.1	121.2	121.4	121.8	121.5	121.9	122.5	122.6	122.7	123.0	123.2	123.3
43	U.S. Postal Service (06/89 = 100)	135.3	135.2	135.2	135.2	135.2	135.2	135.2	135.2	141.3	141.3	141.3	141.3	141.3	141.3	145.4
44	Water transportation (12/92 = 100)	113.0	122.6	125.2	126.1	127.0	126.5	124.2	126.1	125.8	127.8	126.8	125.9	125.6	130.3	131.8
45	Transportation by air (12/92 = 100)	130.8	147.7	147.6	147.9	151.5	152.5	152.7	154.2	154.7	154.0	155.4	155.4	156.4	156.6	157.6
46	Pipelines, except natural gas (12/92 = 100)	98.3	102.3	102.5	102.5	102.4	102.7	102.7	102.7	109.1	109.1	108.9	108.9	109.0	109.0	110.9

33. Annual data: Producer Price Indexes, by stage of processing

[1982 = 100]

Index	1992	1993	1994	1995	1996	1997	1998	1999	2000
Finished goods									
Total	123.2	124.7	125.5	127.9	131.3	131.8	130.7	133.0	138.0
Foods	123.3	125.7	126.8	129.0	133.6	134.5	134.3	135.1	137.2
Energy	77.8	78.0	77.0	78.1	83.2	83.4	75.1	78.8	94.1
Other	134.2	135.8	137.1	140.0	142.0	142.4	143.7	146.1	148.0
Intermediate materials, supplies, and components									
Total	114.7	116.2	118.5	124.9	125.7	125.6	123.0	123.2	129.2
Foods	113.9	115.6	118.5	119.5	125.3	123.2	123.2	120.8	119.2
Energy	84.3	84.6	83.0	84.1	89.8	89.0	80.8	84.3	101.7
Other	122.0	123.8	127.1	135.2	134.0	134.2	133.5	133.1	136.6
Crude materials for further processing									
Total	100.4	102.4	101.8	102.7	113.8	111.1	96.8	98.2	120.6
Foods	105.1	108.4	106.5	105.8	121.5	112.2	103.9	98.7	100.2
Energy	78.8	76.7	72.1	69.4	85.0	87.3	68.6	78.5	122.1
Other	94.2	94.1	97.0	105.8	105.7	103.5	84.5	91.1	118.0

34. U.S. export price indexes by Standard International Trade Classification

[1995 = 100]

SITC Rev. 3	Industry	2000						2001						
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
0	**Food and live animals**	85.8	83.6	85.9	87.1	88.5	88.7	89.8	88.6	89.1	88.6	87.9	87.8	88.5
01	Meat and meat preparations	108.2	103.7	105.2	107.4	107.6	105.9	105.4	107.1	107.1	109.8	110.8	110.7	110.5
04	Cereals and cereal preparations	66.9	64.0	67.8	70.8	74.0	75.8	78.8	76.4	77.2	74.7	74.7	73.5	73.2
05	Vegetables, fruit, and nuts, prepared fresh or dry	91.3	88.6	91.9	88.7	89.8	88.9	86.9	86.2	87.8	89.5	87.4	88.4	91.0
2	**Crude materials, inedible, except fuels**	82.9	82.9	83.7	83.5	82.2	82.6	82.0	80.9	79.7	78.4	77.5	76.9	76.8
21	Hides, skins, and furskins, raw	89.7	95.4	100.5	104.7	102.1	103.3	105.6	106.5	107.5	119.2	123.2	111.0	103.8
22	Oilseeds and oleaginous fruits	80.3	78.0	83.8	81.3	79.3	85.0	83.9	78.1	79.0	75.0	76.0	79.9	85.7
24	Cork and wood	86.5	88.4	86.9	87.2	86.5	85.9	85.2	84.3	83.5	81.6	80.9	80.6	81.2
25	Pulp and waste paper	95.9	91.7	90.7	89.8	88.6	85.9	85.8	83.6	82.3	80.6	75.2	73.6	71.5
26	Textile fibers and their waste	67.7	70.7	72.2	72.0	72.2	73.2	70.4	70.6	67.6	64.8	64.1	63.0	62.6
27	Crude fertilizers and crude minerals	93.3	93.1	91.5	90.7	90.6	90.6	90.9	90.9	89.9	89.4	89.2	89.4	90.4
28	Metalliferous ores and metal scrap	78.0	78.7	78.7	79.5	76.2	74.7	74.1	74.7	72.5	73.0	72.2	71.7	69.2
3	**Mineral fuels, lubricants, and related products**	151.2	147.6	166.3	157.2	162.1	157.4	157.5	159.5	152.4	156.0	159.0	153.6	144.0
32	Coal, coke, and briquettes	93.8	93.1	93.1	93.3	93.1	93.0	93.1	93.1	93.6	100.2	100.4	100.7	100.7
33	Petroleum, petroleum products, and related materials	178.3	172.3	203.3	189.0	193.4	183.6	181.1	185.2	172.4	178.4	184.4	177.0	162.8
4	**Animal and vegetable oils, fats, and waxes**	64.6	63.2	61.7	60.0	59.0	58.7	61.0	60.8	60.6	61.6	65.0	67.1	69.1
5	**Chemicals and related products, n.e.s.**	94.7	94.9	94.4	94.9	94.0	93.0	93.1	92.9	93.4	92.8	91.6	91.0	90.0
54	Medicinal and pharmaceutical products	100.5	100.3	100.2	100.4	100.2	100.1	99.7	99.6	99.4	99.7	99.6	99.7	99.5
55	Essential oils; polishing and cleaning preparations	103.3	103.3	103.4	103.4	103.3	103.2	103.4	103.2	103.4	103.0	102.9	102.9	102.9
57	Plastics in primary forms	97.0	95.4	92.8	92.3	91.2	90.0	90.5	91.5	92.7	91.2	89.9	89.1	87.0
58	Plastics in nonprimary forms	99.4	99.4	99.3	98.9	98.3	98.3	96.6	96.5	96.7	96.8	96.1	96.5	97.1
59	Chemical materials and products, n.e.s.	99.3	99.2	99.2	99.2	99.1	99.9	98.4	98.5	98.5	98.6	98.3	98.3	97.8
6	**Manufactured goods classified chiefly by materials**	100.7	100.9	101.1	100.8	100.5	100.4	101.0	100.6	100.4	100.1	99.9	99.7	98.9
62	Rubber manufactures, n.e.s.	104.8	104.7	104.7	104.6	104.1	103.8	104.4	104.3	104.7	104.0	104.0	104.1	104.8
64	Paper, paperboard, and articles of paper, pulp, and paperboard	90.4	90.3	90.0	89.9	89.6	89.1	88.6	88.4	87.8	87.7	87.6	87.0	85.7
66	Nonmetallic mineral manufactures, n.e.s.	106.3	106.3	106.1	105.8	105.9	105.6	106.2	106.2	106.0	106.5	106.6	107.0	107.0
68	Nonferrous metals	103.0	105.1	105.0	104.9	103.4	104.9	109.1	108.1	106.5	103.1	101.6	99.5	95.5
7	**Machinery and transport equipment**	97.3	97.3	97.4	97.3	97.4	97.4	97.5	97.6	97.9	97.8	97.8	97.6	97.5
71	Power generating machinery and equipment	112.4	112.3	112.4	112.4	113.7	113.7	115.2	115.2	14.7	115.0	115.0	115.0	115.0
72	Machinery specialized for particular industries	106.4	106.5	106.3	106.3	106.5	106.6	106.8	107.1	106.8	106.7	106.7	106.7	105.9
74	General industrial machines and parts, n.e.s., and machine parts	108.3	108.1	108.2	108.3	108.4	108.5	108.6	108.8	109.2	109.5	109.5	109.6	110.1
75	Computer equipment and office machines	68.3	67.8	67.8	67.7	67.8	67.6	67.1	67.1	66.8	66.7	66.2	65.6	65.4
76	Telecommunications and sound recording and reproducing apparatus and equipment	96.7	96.8	96.8	96.6	96.5	96.3	96.5	96.4	96.4	96.5	96.5	96.6	96.5
77	Electrical machinery and equipment	85.7	85.8	85.8	85.4	85.3	85.4	85.2	85.2	85.2	84.8	84.8	84.5	84.0
78	Road vehicles	103.9	103.9	104.1	104.0	103.9	104.0	104.1	104.1	104.1	104.1	104.1	104.1	104.2
87	**Professional, scientific, and controlling instruments and apparatus**	106.4	106.4	106.5	106.9	106.9	106.6	107.0	107.0	107.0	106.8	106.9	107.1	106.9

35. U.S. import price indexes by Standard International Trade Classification

[1995 = 100]

SITC Rev. 3	Industry	2000						2001						
		July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
0	**Food and live animals**	91.5	91.7	91.2	91.5	90.2	92.4	92.8	91.3	93.0	90.8	89.8	88.5	87.7
01	Meat and meat preparations	98.1	98.9	99.0	95.5	95.7	97.3	95.5	96.1	100.4	102.6	104.4	104.3	107.4
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	110.7	113.5	112.6	110.7	109.3	109.1	107.4	105.6	102.2	100.1	99.7	98.8	95.6
05	Vegetables, fruit, and nuts, prepared fresh or dry	97.2	97.6	97.8	100.9	96.8	104.5	106.1	101.7	109.5	102.3	100.5	97.0	97.1
07	Coffee, tea, cocoa, spices, and manufactures thereof	56.8	55.8	54.5	54.1	51.9	50.8	50.5	51.1	51.1	52.1	50.8	49.8	47.2
1	**Beverages and tobacco**	112.5	112.9	113.6	113.5	113.3	113.2	113.2	113.3	113.0	113.2	114.8	114.4	114.4
11	Beverages	109.4	109.9	110.7	110.6	110.7	110.6	110.5	110.8	110.4	110.7	112.5	112.1	112.2
2	**Crude materials, inedible, except fuels**	90.7	89.6	88.9	89.8	87.7	88.5	87.5	88.9	86.1	86.6	89.5	93.7	87.8
24	Cork and wood	107.0	102.2	99.7	101.6	97.7	101.7	95.6	97.6	97.5	102.9	114.1	132.7	117.5
25	Pulp and waste paper	80.7	81.4	82.0	83.4	83.4	83.4	84.3	82.9	80.4	76.8	72.5	68.3	65.5
28	Metalliferous ores and metal scrap	101.2	102.1	101.6	102.3	100.1	98.8	100.8	100.9	98.1	98.1	97.0	95.4	95.8
29	Crude animal and vegetable materials, n.e.s.	101.8	101.3	103.0	104.3	99.1	97.1	102.0	115.3	97.7	91.8	100.7	98.6	85.7
3	**Mineral fuels, lubricants, and related products**	170.6	172.1	189.0	186.3	188.4	180.2	177.1	169.9	154.1	153.1	158.2	153.5	143.2
33	Petroleum, petroleum products, and related materials	168.5	169.9	187.6	181.8	183.3	163.9	152.0	153.9	144.7	143.5	150.6	149.6	141.4
34	Gas, natural and manufactured	202.9	205.4	218.1	242.6	249.3	331.8	401.0	316.9	244.5	244.4	233.5	200.0	168.4
5	**Chemicals and related products, n.e.s.**	95.5	95.9	95.4	95.1	94.7	95.0	95.8	96.3	96.6	96.3	95.7	94.8	93.8
52	Inorganic chemicals	92.5	92.6	92.5	93.1	93.7	94.2	98.5	98.9	97.9	95.0	92.4	91.5	90.8
53	Dying, tanning, and coloring materials	87.6	88.6	87.9	87.0	86.9	86.9	88.8	89.6	89.1	88.4	87.9	87.6	88.2
54	Medicinal and pharmaceutical products	97.5	97.3	96.7	96.0	95.7	95.7	95.1	94.9	94.6	94.0	93.8	93.8	96.8
55	Essential oils; polishing and cleaning preparations	89.9	89.4	88.8	87.6	87.2	86.9	87.1	88.2	88.6	88.1	87.7	87.4	87.1
57	Plastics in primary forms	95.5	95.4	95.3	96.0	95.9	95.8	95.5	95.5	95.8	95.8	95.7	96.8	96.8
58	Plastics in nonprimary forms	81.5	80.9	80.8	80.0	79.5	78.6	80.3	84.5	84.4	83.2	83.1	82.1	80.7
59	Chemical materials and products, n.e.s.	100.2	100.0	101.1	100.4	100.4	100.6	101.8	101.6	101.9	101.4	100.6	100.4	99.8
6	**Manufactured goods classified chiefly by materials**	98.0	98.8	97.9	97.6	97.2	97.3	98.2	98.7	97.3	96.3	95.5	95.3	94.1
62	Rubber manufactures, n.e.s.	92.1	91.9	91.7	91.6	91.5	91.8	91.8	91.9	91.8	91.6	91.5	91.2	90.5
64	Paper, paperboard, and articles of paper, pulp, and paperboard	89.5	89.4	91.4	91.6	91.9	92.2	92.1	92.6	92.8	93.7	92.8	91.9	91.0
66	Nonmetallic mineral manufactures, n.e.s.	100.9	100.9	100.8	100.2	100.2	100.2	100.7	100.5	100.5	100.3	100.3	100.0	100.0
68	Nonferrous metals	112.5	118.7	114.4	115.7	114.3	114.4	121.0	124.0	116.4	110.9	107.0	106.1	101.7
69	Manufactures of metals, n.e.s.	95.8	95.4	95.4	95.2	94.9	95.0	95.3	95.0	94.9	95.7	95.7	95.6	94.9
7	**Machinery and transport equipment**	89.6	89.5	89.3	89.2	89.1	89.0	88.9	88.8	88.8	88.4	88.2	88.1	87.9
72	Machinery specialized for particular industries	96.7	96.5	95.9	95.7	95.4	95.3	95.9	96.6	96.3	96.0	95.8	95.7	95.1
74	General industrial machines and parts, n.e.s., and machine parts	96.7	96.4	96.1	95.5	95.3	95.4	95.9	95.9	95.6	95.1	94.7	94.6	94.6
75	Computer equipment and office machines	59.9	59.9	59.8	58.8	58.8	58.7	58.3	57.8	57.5	56.5	56.4	56.2	56.3
76	Telecommunications and sound recording and reproducing apparatus and equipment	84.3	84.2	84.1	83.9	83.7	83.6	83.0	82.8	82.8	82.1	82.0	82.0	82.1
77	Electrical machinery and equipment	82.8	82.7	82.6	82.7	82.5	82.2	82.1	81.8	82.5	82.1	82.0	81.7	81.8
78	Road vehicles	102.8	102.7	102.6	102.9	102.9	102.9	102.9	102.8	102.8	102.6	102.4	102.6	102.4
85	Footwear	100.9	101.0	100.9	100.8	100.7	100.6	101.0	101.2	101.5	101.1	101.0	100.8	100.9
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	92.5	92.1	91.4	91.4	91.0	90.7	91.2	91.3	91.4	90.6	90.6	90.3	89.7

36. U.S. export price indexes by end-use category

[1995 = 100]

Category	2000						2001						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
ALL COMMODITIES	96.2	96.0	96.6	96.5	96.5	96.3	96.5	96.5	96.2	96.1	95.9	95.6	95.3
Foods, feeds, and beverages	85.1	82.8	85.3	85.8	86.7	87.4	88.2	86.6	87.3	86.6	86.2	86.8	87.9
Agricultural foods, feeds, and beverages	84.0	81.3	84.3	84.6	85.7	86.7	87.3	85.7	86.4	85.9	85.9	86.5	87.5
Nonagricultural (fish, beverages) food products	97.9	99.7	97.9	99.5	98.2	96.3	98.6	97.0	97.6	95.3	91.0	90.9	93.1
Industrial supplies and materials	95.5	95.4	96.6	96.2	95.8	95.0	95.0	94.9	93.9	93.8	93.1	92.3	90.7
Agricultural industrial supplies and materials	77.9	80.3	81.9	82.3	82.0	82.9	82.4	82.6	80.7	80.7	81.0	78.7	77.7
Fuels and lubricants	141.1	137.9	155.0	146.9	150.7	146.2	145.2	147.1	139.8	144.8	147.7	143.2	135.0
Nonagricultural supplies and materials, excluding fuel and building materials	91.7	91.7	91.4	91.6	90.7	90.1	90.4	90.1	89.8	89.2	88.0	87.6	86.5
Selected building materials	89.6	90.5	89.4	89.8	89.0	89.0	88.8	88.2	87.4	86.8	86.3	87.0	87.2
Capital goods	96.1	96.1	96.2	96.1	96.2	96.3	96.4	96.5	96.7	96.6	96.6	96.4	96.3
Electric and electrical generating equipment	99.1	99.7	99.9	99.5	99.6	99.7	100.0	100.5	100.1	100.5	100.9	100.9	100.9
Nonelectrical machinery	91.6	91.6	91.5	91.5	91.5	91.5	91.5	91.5	915.0	91.3	91.1	90.9	90.7
Automotive vehicles, parts, and engines	104.4	104.4	104.5	104.5	104.4	104.4	104.6	104.5	104.6	104.7	104.7	104.7	104.7
Consumer goods, excluding automotive	102.5	102.4	102.2	102.3	102.2	102.0	102.1	102.0	101.9	101.8	101.7	101.7	101.8
Nondurables, manufactured	102.4	102.4	102.2	102.4	102.2	102.0	102.0	101.5	101.3	101.2	101.2	101.3	101.2
Durables, manufactured	101.5	101.4	101.3	101.2	101.2	101.1	101.3	101.5	101.5	101.3	101.2	101.2	101.4
Agricultural commodities	82.6	80.9	83.5	83.9	84.7	85.7	86.1	84.9	85.1	84.7	84.7	84.8	85.5
Nonagricultural commodities	97.8	97.7	98.0	97.9	97.8	97.5	97.7	97.7	97.5	97.4	97.1	96.9	96.4

37. U.S. import price indexes by end-use category

[1995 = 100]

Category	2000						2001						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
ALL COMMODITIES	99.7	99.9	101.0	100.6	100.6	100.0	100.0	99.3	97.8	97.2	97.5	97.1	95.6
Foods, feeds, and beverages	91.1	91.3	90.7	90.7	89.4	91.0	90.8	89.8	90.6	88.9	88.7	87.6	86.4
Agricultural foods, feeds, and beverages	83.7	83.2	82.5	83.0	81.9	84.2	84.3	83.4	85.6	83.8	83.5	82.2	81.7
Nonagricultural (fish, beverages) food products	110.5	112.9	112.5	111.2	109.5	109.1	107.9	106.7	103.9	102.4	102.1	101.4	98.6
Industrial supplies and materials	121.8	122.8	127.6	126.6	126.9	124.5	124.4	122.3	116.1	115.4	116.7	115.6	110.6
Fuels and lubricants	169.2	170.9	187.4	184.5	186.8	178.7	176.7	169.3	153.3	152.3	157.4	153.1	142.7
Petroleum and petroleum products	168.0	169.5	187.1	181.9	183.6	165.6	155.7	156.1	145.9	144.2	151.0	149.5	141.6
Paper and paper base stocks	87.5	87.6	89.8	90.4	90.6	91.0	91.0	91.2	90.8	91.1	89.0	87.1	85.3
Materials associated with nondurable supplies and materials	92.7	93.4	92.8	92.8	92.6	93.3	94.1	94.3	94.4	93.9	93.1	92.2	90.8
Selected building materials	103.4	100.2	98.7	99.3	97.2	99.1	95.3	96.0	96.2	98.3	104.8	116.3	107.8
Unfinished metals associated with durable goods	106.5	109.5	105.9	105.6	104.1	103.7	107.2	108.7	103.8	101.1	98.2	97.6	95.4
Nonmetals associated with durable goods	87.7	87.6	87.2	87.3	87.1	87.2	87.8	88.7	88.8	88.5	88.2	88.0	87.6
Capital goods	80.9	80.7	80.6	80.2	80.1	80.0	79.9	79.7	68,7	79.2	68,1	79.0	78.7
Electric and electrical generating equipment	94.1	93.7	93.5	93.4	93.1	93.1	93.1	92.9	95.2	94.7	94.9	94.9	94.7
Nonelectrical machinery	77.1	77.0	76.8	76.4	76.3	76.1	76.0	75.8	75.6	75.0	74.8	74.7	74.3
Automotive vehicles, parts, and engines	102.8	102.7	102.5	102.6	102.7	102.7	102.7	102.6	102.6	102.5	102.3	102.3	102.3
Consumer goods, excluding automotive	96.8	96.8	96.6	96.6	96.5	96.4	96.6	96.6	96.6	96.4	96.4	96.2	96.1
Nondurables, manufactured	99.8	100.0	99.8	99.8	99.8	99.6	92.9	99.8	100.1	100.0	100.0	99.8	100.0
Durables, manufactured	93.4	93.2	93.0	92.8	92.8	92.8	92.9	92.8	92.8	92.5	92.3	92.1	91.9
Nonmanufactured consumer goods	99.5	99.2	99.6	99.8	99.1	98.8	99.5	101.5	99.1	98.0	99.4	99.0	97.4

38. U.S. international price indexes for selected categories of services

[1995 = 100]

Category	1999			2000				2001	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
Air freight (inbound)	86.2	87.9	90.7	88.9	88.4	88.5	87.4	86.5	84.0
Air freight (outbound)	92.8	92.7	91.7	91.7	92.8	92.6	92.6	92.6	90.5
Air passenger fares (U.S. carriers)	112.3	114.2	106.8	107.3	113.3	115.5	111.9	114.2	119.2
Air passenger fares (foreign carriers)	106.3	108.6	102.2	102.6	107.9	109.1	103.2	106.4	109.7
Ocean liner freight (inbound)	133.7	148.0	139.4	136.3	143.0	142.8	142.8	145.1	142.3

39. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

[1992 = 100]

Item	Quarterly indexes												
	1998			1999				2000				2001	
	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
Business													
Output per hour of all persons	110.3	110.8	111.8	112.5	112.7	114.0	116.1	115.0	117.1	117.4	118.2	118.2	119.0
Compensation per hour	118.9	120.3	121.6	123.0	124.3	125.9	127.1	129.0	131.7	133.8	136.8	138.2	140.4
Real compensation per hour	104.1	105.0	105.7	106.4	106.8	107.4	107.6	108.1	109.6	110.3	112.0	112.3	112.9
Unit labor costs	107.8	108.6	108.8	109.3	110.4	110.5	109.5	112.1	112.5	114.0	115.7	117.2	117.9
Unit nonlabor payments	115.1	114.5	114.6	115.1	114.2	114.4	116.9	114.2	115.2	113.9	112.1	111.8	112.1
Implicit price deflator	110.5	110.7	110.9	111.4	111.8	111.9	112.2	112.9	113.5	113.9	114.4	115.2	115.8
Nonfarm business													
Output per hour of all persons	110.1	110.5	111.4	111.9	112.0	113.4	115.6	114.5	116.3	116.7	117.4	117.4	118.1
Compensation per hour	118.3	119.8	120.9	122.1	123.4	125.0	126.3	128.4	130.7	133.0	135.9	137.6	139.1
Real compensation per hour	103.6	104.5	105.1	105.6	106.0	106.6	107.0	107.6	108.8	109.7	111.3	111.5	111.9
Unit labor costs	107.5	108.4	108.6	109.0	110.2	110.2	109.3	112.1	112.4	114.0	115.8	117.2	117.8
Unit nonlabor payments	116.2	115.7	115.8	116.7	115.8	116.1	118.6	116.0	116.7	115.4	113.5	113.1	113.4
Implicit price deflator	110.7	111.0	111.2	111.8	112.2	112.4	112.7	113.5	114.0	114.5	114.9	115.7	116.2
Nonfinancial corporations													
Output per hour of all employees	111.7	113.1	113.7	114.6	115.3	116.6	118.3	117.7	119.7	120.9	121.4	121.5	122.4
Compensation per hour	115.2	116.7	117.8	119.0	120.3	121.8	123.0	124.7	127.2	129.3	132.3	134.1	136.1
Real compensation per hour	100.9	101.8	102.4	103.0	103.3	103.9	104.2	104.5	105.8	106.6	108.3	108.7	109.5
Total unit costs	102.6	102.5	103.2	103.2	103.7	104.0	103.9	105.9	106.0	106.6	108.2	109.6	110.7
Unit labor costs	103.1	103.2	103.6	103.9	104.3	104.5	104.0	106.0	106.2	106.9	109.0	110.3	111.2
Unit nonlabor costs	101.2	100.7	102.1	101.3	102.2	102.9	103.4	105.5	105.3	105.6	106.0	107.5	109.2
Unit profits	147.7	152.0	145.3	150.6	148.6	144.4	147.0	134.3	137.8	133.8	118.5	109.2	104.2
Unit nonlabor payments	113.0	113.8	113.1	113.9	114.0	113.5	114.5	112.9	113.6	112.8	109.2	107.9	107.9
Implicit price deflator	106.4	106.7	106.8	107.2	107.5	107.5	107.5	108.3	108.7	108.9	109.0	109.5	110.1
Manufacturing													
Output per hour of all persons	123.2	125.7	126.8	128.9	130.2	131.9	135.0	135.2	137.3	139.4	141.3	140.0	139.9
Compensation per hour	116.8	118.0	119.0	119.9	121.2	122.8	124.1	125.9	128.1	131.2	135.2	137.2	139.3
Real compensation per hour	102.2	103.0	103.4	103.7	104.1	104.7	105.2	105.5	106.6	108.3	110.7	111.3	112.1
Unit labor costs	94.8	93.9	93.9	93.0	93.1	93.1	91.9	93.2	93.3	94.1	95.7	98.0	99.6

40. Annual indexes of multifactor productivity and related measures, selected years

[1996 = 100, unless otherwise indicated]

Item	1960	1970	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998
Private business												
Productivity:												
Output per hour of all persons	45.6	63.0	75.8	90.2	91.3	94.8	95.4	96.6	97.3	100.0	102.0	104.8
Output per unit of capital services	110.4	111.1	101.5	99.3	96.1	97.7	98.5	100.3	99.7	100.0	100.5	100.1
Multifactor productivity	65.2	80.0	88.3	95.3	94.4	96.6	97.1	98.1	98.4	100.0	101.1	102.6
Output	27.5	42.0	59.4	83.6	82.6	85.7	88.5	92.8	95.8	100.0	105.2	110.6
Inputs:												
Labor input	54.0	61.0	71.9	89.4	88.3	89.3	91.8	95.6	98.0	100.0	103.7	106.4
Capital services	24.9	37.8	58.6	84.2	86.0	87.7	89.8	92.6	96.0	100.0	104.7	110.4
Combined units of labor and capital input	42.3	52.4	67.3	87.7	87.5	88.8	91.1	94.6	97.3	100.0	104.0	107.7
Capital per hour of all persons	41.3	56.7	74.7	90.8	95.0	97.0	96.8	96.3	97.6	100.0	101.5	104.7
Private nonfarm business												
Productivity:												
Output per hour of all persons	48.7	64.9	77.3	90.3	91.4	94.8	95.3	96.5	97.5	100.0	101.7	104.5
Output per unit of capital services	120.1	118.3	105.7	100.0	96.6	97.9	98.8	100.3	99.9	100.0	100.2	99.8
Multifactor productivity	69.1	82.6	90.5	95.6	94.7	96.6	97.1	98.1	98.6	100.0	100.9	102 4
Output	27.2	41.9	59.6	83.5	82.5	85.5	88.4	92.6	95.8	100.0	105.1	110.6
Inputs:												
Labor input	50.1	59.3	70.7	89.2	88.0	89.0	91.8	95.4	97.8	100.0	103.8	106.6
Capital services	22.6	35.5	56.4	83.5	85.4	87.3	89.5	92.3	95.9	100.0	104.9	110.8
Combined units of labor and capital input	39.3	50.7	65.9	87.3	87.1	88.4	91.0	94.4	97.2	100.0	104.2	108.0
Capital per hour of all persons	40.5	54.8	73.1	90.3	94.7	96.8	96.5	96.3	97.6	100.0	101.5	104.7
Manufacturing (1992 = 100)												
Productivity:												
Output per hour of all persons	41.8	54.2	70.1	92.8	95.0	100.0	101.9	105.0	109.0	112.8	117.1	124.3
Output per unit of capital services	124.3	116.5	100.9	101.6	97.5	100.0	101.1	104.0	105.0	104.5	105.6	106.5
Multifactor productivity	72.7	84.4	86.6	99.3	98.3	100.0	100.4	102.6	105.0	106.1	109.8	113.2
Output	38.5	56.5	75.3	97.3	95.4	100.0	103.3	108.7	113.4	116.9	123.5	130.7
Inputs:												
Hours of all persons	92.0	104.2	107.5	104.8	100.4	100.0	101.4	103.6	104.0	103.7	105.5	105.2
Capital services	30.9	48.5	74.7	95.8	97.9	100.0	102.2	104.5	108.0	111.9	116.9	122.8
Energy	51.3	85.4	92.5	99.9	100.1	100.0	103.7	107.3	109.5	107.0	103.9	109.2
Nonenergy materials	38.2	44.8	75.0	92.5	93.6	100.0	105.7	111.3	112.8	120.4	120.4	127.2
Purchased business services	28.2	48.8	73.7	92.5	92.1	100.0	103.0	105.1	110.0	108.9	114.2	116.8
Combined units of all factor inputs	52.9	67.0	87.0	98.0	97.0	100.0	102.9	106.0	107.9	110.2	112.5	115.5

41. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

[1992 = 100]

Item	1960	1970	1980	1990	1991	1993	1994	1995	1996	1997	1998	1999	2000
Business													
Output per hour of all persons	48.8	67.0	80.4	95.2	96.3	100.5	101.9	102.6	105.4	107.8	110.8	113.8	116.9
Compensation per hour	13.7	23.5	54.2	90.7	95.0	102.5	104.5	106.7	110.1	113.5	119.6	125.1	132.8
Real compensation per hour	60.0	78.9	89.4	96.5	97.5	99.9	99.7	99.3	99.7	100.6	104.6	107.1	110.1
Unit labor costs	28.0	35.1	67.4	95.3	98.7	101.9	102.6	104.1	104.5	105.3	108.0	109.9	113.6
Unit nonlabor payments	25.2	31.6	61.5	93.9	97.0	102.5	106.4	109.4	113.3	117.1	115.1	115.1	113.9
Implicit price deflator	27.0	33.9	65.2	94.8	98.1	102.2	104.0	106.0	107.7	109.7	110.6	111.8	113.7
Nonfarm business													
Output per hour of all persons	51.9	68.9	82.0	95.3	96.4	100.5	101.8	102.8	105.4	107.5	110.4	113.2	116.2
Compensation per hour	14.3	23.7	54.6	90.5	95.0	102.2	104.3	106.6	109.8	113.1	119.0	124.2	132.0
Real compensation per hour	62.8	79.5	90.0	96.3	97.5	99.6	99.5	99.2	99.4	100.2	104.0	106.4	109.4
Unit labor costs	27.5	34.4	66.5	95.0	98.5	101.7	102.5	103.7	104.2	105.2	107.7	109.7	113.6
Unit nonlabor payments	24.6	31.3	60.5	93.6	97.1	103.0	106.9	110.4	113.5	118.0	116.3	116.8	115.4
Implicit price deflator	26.5	33.3	64.3	94.5	98.0	102.2	104.1	106.1	107.6	109.8	110.8	112.3	114.2
Nonfinancial corporations													
Output per hour of all employees	55.4	70.4	81.1	95.4	97.7	100.7	103.1	104.2	107.5	108.4	112.3	116.2	119.9
Compensation per hour	15.6	25.3	56.4	90.8	95.3	102.0	104.2	106.2	109.0	110.3	115.9	121.1	128.3
Real compensation per hour	68.3	84.7	93.1	96.7	97.8	99.5	99.4	98.8	98.7	97.8	101.3	103.7	106.4
Total unit costs	26.8	34.8	68.4	95.9	98.8	101.0	101.1	102.0	101.2	101.5	102.6	103.7	106.7
Unit labor costs	28.1	35.9	69.6	95.2	97.5	101.3	101.0	101.9	101.4	101.8	103.2	104.2	107.0
Unit nonlabor costs	23.3	31.9	65.1	98.0	102.1	100.2	101.3	102.2	100.6	100.9	101.2	102.5	105.6
Unit profits	50.2	44.4	68.8	94.3	93.0	113.2	131.7	139.0	152.2	156.9	148.9	147.6	131.0
Unit nonlabor payments	30.2	35.1	66.0	97.1	99.7	103.5	109.0	111.6	113.8	115.2	113.4	114.0	112.1
Implicit price deflator	28.8	35.6	68.4	95.8	98.3	102.1	103.7	105.1	105.5	106.2	106.6	107.4	108.7
Manufacturing													
Output per hour of all persons	41.8	54.2	70.1	92.8	95.0	101.9	105.0	109.0	112.8	117.1	124.3	129.6	46.3
Compensation per hour	14.9	23.7	55.6	90.8	95.6	102.7	105.6	107.9	109.3	111.4	117.3	122.0	130.1
Real compensation per hour	65.2	79.5	91.7	96.6	98.1	100.2	100.8	100.4	99.0	98.8	102.6	104.5	107.8
Unit labor costs	35.6	43.8	79.3	97.8	100.6	100.8	100.7	99.0	96.9	95.1	94.4	94.1	94.1
Unit nonlabor payments	26.8	29.3	80.2	99.7	99.0	100.9	102.8	106.9	109.9	109.6	104.4	105.5	–
Implicit price deflator	30.2	34.9	79.8	99.0	99.6	100.9	102.0	103.9	104.9	104.0	100.5	101.1	–

Dash indicates data not available.

42. Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Mining											
Copper ores	102	102.7	100.5	115.2	118.1	126.0	117.2	116.5	118.9	118.3	105.5
Gold and silver ores	104	122.3	127.4	141.6	159.8	160.8	144.2	138.3	158.5	187.6	200.0
Bituminous coal and lignite mining	122	118.7	122.4	133.0	141.2	148.1	155.9	168.0	176.6	188.0	192.2
Crude petroleum and natural gas	131	97.0	97.9	102.1	105.9	112.4	119.4	123.9	125.2	127.4	132.3
Crushed and broken stone	142	102.2	99.8	105.0	103.6	108.7	105.4	107.2	112.6	110.2	104.8
Manufacturing											
Meat products	201	97.1	99.6	104.6	104.3	101.2	102.3	97.4	102.5	102.3	102.2
Dairy products	202	107.3	108.3	111.4	109.6	111.8	116.4	116.0	119.3	119.3	114.1
Preserved fruits and vegetables	203	95.6	99.2	100.5	106.8	107.6	109.1	109.2	110.7	117.8	120.0
Grain mill products	204	105.4	104.9	107.8	109.2	108.4	115.4	108.0	118.2	126.2	130.4
Bakery products	205	92.7	90.6	93.8	94.4	96.4	97.3	95.6	99.1	100.8	107.5
Sugar and confectionery products	206	103.2	102.0	99.8	104.5	106.2	108.3	113.8	116.7	123.0	130.0
Fats and oils	207	118.1	120.1	114.1	112.6	111.8	120.3	110.1	120.2	137.3	156.1
Beverages	208	117.0	120.0	127.1	126.4	130.1	133.5	135.0	135.5	136.4	132.4
Miscellaneous food and kindred products	209	99.2	101.7	101.5	105.2	100.9	102.9	109.1	104.1	112.7	116.3
Cigarettes	211	113.2	107.6	111.6	106.5	126.6	142.9	147.2	147.2	152.2	135.8
Broadwoven fabric mills, cotton	221	103.1	111.2	110.3	117.8	122.1	134.0	137.3	131.2	136.2	138.7
Broadwoven fabric mills, manmade	222	111.3	116.2	126.2	131.7	142.5	145.3	147.6	162.2	168.6	171.9
Narrow fabric mills	224	96.5	99.6	112.9	111.4	120.1	118.9	126.3	110.8	117.7	122.4
Knitting mills	225	107.5	114.0	119.3	127.9	134.1	138.3	150.3	138.0	135.9	144.8
Textile finishing, except wool	226	83.4	79.9	78.6	79.3	81.2	78.5	79.2	94.3	99.1	101.0
Carpets and rugs	227	93.2	89.2	96.1	97.1	93.3	95.8	100.2	100.3	102.3	97.8
Yarn and thread mills	228	110.2	111.4	119.6	126.6	130.7	137.4	147.4	150.4	153.0	169.5
Miscellaneous textile goods	229	109.2	104.6	106.5	110.4	118.5	123.7	123.1	118.7	120.1	127.0
Men's and boys' furnishings	232	102.1	108.4	109.1	108.4	111.7	123.4	134.7	162.1	174.7	187.0
Women's and misses' outerwear	233	104.1	104.3	109.4	121.8	127.4	135.5	141.6	149.9	151.9	174.5
Women's and children's undergarments	234	102.1	113.7	117.4	124.5	138.0	161.3	174.5	208.9	216.4	293.0
Hats, caps, and millinery	235	89.2	91.1	93.6	87.2	77.7	84.3	82.2	87.1	99.5	108.7
Miscellaneous apparel and accessories	238	90.6	91.8	91.3	94.0	105.5	116.8	120.1	101.4	107.7	105.8
Miscellaneous fabricated textile products	239	99.9	100.7	107.5	108.5	107.8	109.2	105.6	119.2	117.2	129.2
Sawmills and planing mills	242	99.8	102.6	108.1	101.9	103.3	110.2	115.6	116.9	118.7	125.4
Millwork, plywood, and structural members	243	98.0	98.0	99.9	97.0	94.5	92.7	92.4	89.1	91.3	90.7
Wood containers	244	111.2	113.1	109.4	100.1	100.9	106.1	106.7	106.2	106.6	105.0
Wood buildings and mobile homes	245	103.1	103.0	103.1	103.8	98.3	97.0	96.7	100.3	99.2	96.8
Miscellaneous wood products	249	107.7	110.5	114.2	115.3	111.8	115.4	114.4	123.4	131.2	141.3
Household furniture	251	104.5	107.1	110.5	110.6	112.5	116.9	121.6	121.3	125.8	128.7
Office furniture	252	95.0	94.1	102.5	103.2	100.5	101.1	106.4	118.3	113.1	109.8
Public building and related furniture	253	119.8	120.2	140.6	161.0	157.4	173.3	181.5	214.9	207.6	210.9
Partitions and fixtures	254	95.6	93.0	102.7	107.4	98.9	101.2	97.5	121.1	125.6	127.0
Miscellaneous furniture and fixtures	259	103.5	102.1	99.5	103.6	104.7	110.0	113.2	110.7	121.9	122.7
Pulp mills	261	116.7	128.3	137.3	122.5	128.9	131.9	132.6	82.3	86.6	88.4
Paper mills	262	102.3	99.2	103.3	102.4	110.2	118.6	111.6	112.0	114.9	122.7
Paperboard mills	263	100.6	101.4	104.4	108.4	114.9	119.5	118.0	126.7	127.8	131.0
Paperboard containers and boxes	265	101.3	103.4	105.2	107.9	108.4	105.1	106.3	109.7	113.5	113.5
Miscellaneous converted paper products	267	101.4	105.3	105.5	107.9	110.6	113.3	113.6	119.5	122.9	127.3
Newspapers	271	90.6	85.8	81.5	79.4	79.9	79.0	77.4	79.0	83.6	86.3
Periodicals	272	93.9	89.5	92.9	89.5	81.9	87.8	89.1	100.1	115.0	115.1
Books	273	96.6	100.8	97.7	103.5	103.0	101.6	99.3	102.6	101.0	105.4
Miscellaneous publishing	274	92.2	95.9	105.8	104.5	97.5	94.8	93.6	114.5	119.5	128.3
Commercial printing	275	102.5	102.0	108.0	106.9	106.5	107.2	108.3	108.8	109.9	115.2
Manifold business forms	276	93.0	89.1	94.5	91.1	82.0	76.9	75.2	77.9	76.7	73.6
Greeting cards	277	100.6	92.7	96.7	91.4	89.0	92.5	90.8	92.2	104.2	103.9
Blankbooks and bookbinding	278	99.4	96.1	103.6	98.7	105.4	108.7	114.5	114.2	116.4	123.3
Printing trade services	279	99.3	100.6	112.0	115.3	111.0	116.7	126.2	123.3	126.7	120.5
Industrial inorganic chemicals	281	106.8	109.7	109.7	105.6	102.3	109.3	110.1	116.8	145.8	170.7
Plastics materials and synthetics	282	100.9	100.0	107.5	112.0	125.3	128.3	125.3	135.4	142.2	145.7
Drugs	283	103.8	104.5	99.5	99.7	104.6	108.7	112.5	112.4	104.3	104.8
Soaps, cleaners, and toilet goods	284	103.8	105.3	104.4	108.7	111.2	118.6	120.9	126.4	122.7	116.8
Paints and allied products	285	106.3	104.3	102.9	108.8	116.7	118.0	125.6	126.4	126.8	125.6
Industrial organic chemicals	286	101.4	95.8	94.6	92.2	99.9	98.6	99.0	111.2	105.7	111.3
Agricultural chemicals	287	104.7	99.5	99.5	103.8	105.0	108.5	110.0	119.8	117.5	106.9

See footnotes at end of table.

42. Continued—Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Miscellaneous chemical products	289	97.3	96.1	101.8	107.1	105.7	107.8	110.1	120.3	120.6	128.1
Petroleum refining	291	109.2	106.6	111.3	120.1	123.8	132.3	142.0	149.2	155.7	169.5
Asphalt paving and roofing materials	295	98.0	94.1	100.4	108.0	104.9	111.2	113.1	123.1	124.7	115.7
Miscellaneous petroleum and coal products	299	94.8	90.6	101.5	104.2	96.3	87.4	87.1	96.5	98.5	90.7
Tires and inner tubes	301	103.0	102.4	107.8	116.5	124.1	131.1	138.8	149.1	144.2	145.5
Hose and belting and gaskets and packing	305	96.1	92.4	97.8	99.7	102.7	104.6	107.4	113.5	112.7	114.0
Fabricated rubber products, n.e.c.	306	109.0	109.9	115.2	123.1	119.1	121.5	121.0	125.3	132.3	140.8
Miscellaneous plastics products, n.e.c.	308	105.7	108.3	114.4	116.7	120.8	121.0	124.7	129.9	133.8	141.2
Footwear, except rubber	314	101.1	94.4	104.2	105.2	113.0	117.1	126.1	121.4	110.9	131.6
Flat glass	321	84.5	83.6	92.7	97.7	97.6	99.6	101.5	107.6	114.0	127.7
Glass and glassware, pressed or blown	322	104.8	102.3	108.9	108.7	112.9	115.7	121.4	128.3	135.2	143.6
Products of purchased glass	323	92.6	97.7	101.5	106.2	105.9	106.1	122.0	125.1	122.0	134.0
Cement, hydraulic	324	112.4	108.3	115.1	119.9	125.6	124.3	128.7	133.1	134.1	139.6
Structural clay products	325	109.6	109.8	111.4	106.8	114.0	112.6	119.6	111.9	114.8	124.0
Pottery and related products	326	98.6	95.8	99.5	100.3	108.4	109.3	119.3	123.2	127.1	120.8
Concrete, gypsum, and plaster products	327	102.3	101.2	102.5	104.6	101.5	104.5	107.3	107.6	112.8	114.4
Miscellaneous nonmetallic mineral products	329	95.4	94.0	104.3	104.5	106.3	107.8	110.4	114.6	114.7	114.6
Blast furnace and basic steel products	331	109.7	107.8	117.0	133.6	142.4	142.6	147.5	155.0	151.0	148.9
Iron and steel foundries	332	106.1	104.5	107.2	112.1	113.0	112.7	116.2	120.8	121.1	126.2
Primary nonferrous metals	333	102.3	110.7	101.9	107.9	105.3	111.0	110.8	112.0	125.8	131.2
Nonferrous rolling and drawing	335	92.7	91.0	96.0	98.3	101.2	99.2	104.0	111.3	115.2	122.7
Nonferrous foundries (castings)	336	104.0	103.6	103.6	108.5	112.1	117.8	122.3	127.0	131.5	130.8
Miscellaneous primary metal products	339	113.7	109.1	114.5	111.3	134.5	152.2	149.6	136.2	140.0	150.4
Metal cans and shipping containers	341	117.6	122.9	127.8	132.3	140.9	144.2	155.2	160.3	163.8	160.3
Cutlery, handtools, and hardware	342	97.3	96.8	100.1	104.0	109.2	111.3	118.2	114.6	115.7	123.9
Plumbing and heating, except electric	343	102.6	102.0	98.4	102.0	109.1	109.2	118.6	127.3	130.3	126.9
Fabricated structural metal products	344	98.8	100.0	103.9	104.8	107.7	105.8	106.5	111.9	112.7	112.7
Metal forgings and stampings	346	95.6	92.9	103.7	108.7	108.5	109.3	113.6	120.2	125.9	130.3
Metal services, n.e.c.	347	104.7	99.4	111.6	120.6	123.0	127.7	128.4	124.4	127.3	127.9
Ordnance and accessories, n.e.c.	348	82.1	81.5	88.6	84.6	83.6	87.6	87.5	93.7	96.6	92.2
Miscellaneous fabricated metal products	349	97.5	97.4	101.1	102.0	103.2	106.6	108.3	107.7	111.5	110.3
Engines and turbines	351	106.5	105.8	103.3	109.2	122.3	122.7	136.6	136.9	145.9	151.2
Farm and garden machinery	352	116.5	112.9	113.9	118.6	125.0	134.7	137.2	141.2	148.5	125.5
Construction and related machinery	353	107.0	99.1	102.0	108.2	117.7	122.1	123.3	132.5	137.5	137.2
Metalworking machinery	354	101.1	96.4	104.3	107.4	109.9	114.8	114.9	119.2	119.8	123.5
Special industry machinery	355	107.5	108.3	106.0	113.6	121.2	132.3	134.0	131.7	125.1	139.3
General industrial machinery	356	101.5	101.6	101.6	104.8	106.7	109.0	109.4	110.0	111.2	111.4
Computer and office equipment	357	138.1	149.6	195.7	258.6	328.6	469.4	681.3	960.2	1350.6	1840.2
Refrigeration and service machinery	358	103.6	100.7	104.9	108.6	110.7	112.7	114.7	115.0	121.4	123.2
Industrial machinery, n.e.c.	359	107.3	109.0	117.0	118.5	127.4	138.8	141.4	129.3	127.5	134.3
Electric distribution equipment	361	106.3	106.5	119.6	122.2	131.8	143.0	143.9	142.8	147.5	146.6
Electrical industrial apparatus	362	107.7	107.1	117.1	132.9	134.9	150.8	154.3	164.2	162.3	162.9
Household appliances	363	105.8	106.5	115.0	123.4	131.4	127.3	127.4	142.9	150.3	150.2
Electric lighting and wiring equipment	364	99.9	97.5	105.7	107.8	113.4	113.7	116.9	121.8	129.2	132.4
Communications equipment	366	123.8	129.1	154.9	163.0	186.4	200.6	229.5	275.3	276.0	327.1
Electronic components and accessories	367	133.4	154.7	189.3	217.9	274.1	401.5	514.9	613.4	768.0	107.0
Miscellaneous electrical equipment & supplies	369	90.6	98.6	101.3	108.2	110.5	114.1	123.1	128.3	135.3	140.7
Motor vehicles and equipment	371	102.4	96.6	104.2	106.2	108.8	106.7	107.2	116.3	125.2	136.5
Aircraft and parts	372	98.9	108.2	112.3	115.2	109.6	107.9	113.0	114.7	140.1	139.6
Ship and boat building and repairing	373	103.7	96.3	102.7	106.2	103.8	98.0	99.2	105.3	102.0	112.6
Railroad equipment	374	141.1	146.9	147.9	151.0	152.5	150.0	148.3	184.2	189.1	205.1
Motorcycles, bicycles, and parts	375	93.8	99.8	108.4	130.9	125.1	120.3	125.5	120.4	127.7	121.4
Guided missiles, space vehicles, parts	376	116.5	110.5	110.5	122.1	118.9	121.0	129.4	136.5	142.4	158.2
Search and navigation equipment	381	112.7	118.9	122.1	129.1	132.1	149.5	142.2	149.5	149.1	139.7
Measuring and controlling devices	382	106.4	113.1	119.9	124.0	133.8	146.4	150.5	142.4	143.5	152.9
Medical instruments and supplies	384	116.9	118.7	123.5	127.3	126.7	131.5	139.8	147.4	158.6	160.2
Ophthalmic goods	385	121.2	125.1	144.5	157.8	160.6	167.2	188.2	196.3	199.1	229.5
Photographic equipment & supplies	386	107.8	110.2	116.4	126.9	132.7	129.5	128.7	121.5	124.8	147.2
Jewelry, silverware, and plated ware	391	99.3	95.8	96.7	96.7	99.5	100.2	102.6	114.2	113.1	133.9
Musical instruments	393	97.1	96.9	96.0	95.6	88.7	86.9	78.8	82.9	81.4	86.4

See footnotes at end of table.

42. Continued—Annual indexes of output per hour for selected 3-digit SIC industries

[1987 = 100]

Industry	SIC	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Toys and sporting goods	394	108.1	109.7	104.9	114.2	109.7	113.6	119.9	125.7	131.6	124.0
Pens, pencils, office, and art supplies	395	118.2	116.8	111.3	111.6	129.9	135.2	144.1	127.5	132.5	129.3
Costume jewelry and notions	396	105.3	106.7	110.8	115.8	129.0	143.7	142.2	118.0	131.2	150.2
Miscellaneous manufactures	399	106.5	109.2	109.5	107.7	106.1	108.1	112.8	109.4	108.5	111.2
Transportation											
Railroad transportation	4011	118.5	127.8	139.6	145.4	150.3	156.2	167.0	169.8	173.3	182.3
Trucking, except local [1]	4213	111.1	116.9	123.4	126.6	129.5	125.4	130.9	132.4	129.9	131.6
U.S. postal service [2]	431	104.0	103.7	104.5	107.1	106.6	106.5	104.7	108.3	109.7	110.3
Air transportation [1]	4512,13,22 (pts.)	92.9	92.5	96.9	100.2	105.7	108.6	111.1	111.6	110.7	108.3
Utitlities											
Telephone communications	481	113.3	119.8	127.7	135.5	142.2	148.1	159.5	160.9	170.3	189.1
Radio and television broadcasting	483	104.9	106.1	108.3	106.7	110.1	109.6	105.8	101.1	100.7	101.8
Cable and other pay TV services	484	92.6	87.6	88.5	85.3	83.4	84.5	81.9	84.7	83.5	81.5
Electric utilities	491,3 (pt.)	110.1	113.4	115.2	120.6	126.8	135.0	146.5	150.5	160.1	162.7
Gas utilities	492,3 (pt.)	105.8	109.6	111.1	121.8	125.6	137.1	145.9	158.6	144.4	145.0
Trade											
Lumber and other building materials dealers	521	104.3	102.3	106.4	111.4	118.9	117.8	121.6	121.8	134.2	142.3
Paint, glass, and wallpaper stores	523	106.8	100.4	107.6	114.2	127.8	130.9	133.5	134.8	163.5	163.2
Hardware stores	525	115.3	108.7	115.2	113.9	121.2	115.5	119.5	119.0	137.8	149.3
Retail nurseries, lawn and garden supply stores	526	84.7	89.3	101.2	107.1	117.0	117.4	136.4	127.5	133.7	151.2
Department stores	531	96.8	102.0	105.4	110.4	113.4	115.9	123.5	128.8	135.5	147.4
Variety stores	533	154.4	158.8	173.7	191.5	197.4	211.3	238.4	257.7	268.7	319.5
Miscellaneous general merchandise stores	539	118.6	124.8	140.4	164.2	164.8	167.3	167.6	170.3	185.7	195.2
Grocery stores	541	96.6	96.3	96.5	96.0	95.4	93.9	92.1	91.7	92.2	95.4
Meat and fish (seafood) markets	542	98.9	90.8	99.2	97.7	95.7	94.4	86.4	90.8	95.7	99.3
Retail bakeries	546	91.2	96.7	96.5	86.5	85.3	83.0	75.9	67.6	68.1	83.8
New and used car dealers	551	106.7	104.9	107.4	108.6	109.7	108.1	109.1	108.8	108.7	111.9
Auto and home supply stores	553	103.6	100.2	101.6	100.8	105.3	109.1	108.2	108.1	113.0	116.0
Gasoline service stations	554	103.0	104.8	110.2	115.9	121.1	127.2	126.1	126.1	133.9	140.6
Men's and boy's wear stores	561	115.6	121.9	122.3	119.5	121.8	121.4	129.8	136.3	145.2	154.6
Women's clothing stores	562	106.6	111.2	123.6	130.0	130.4	139.9	154.2	157.3	176.1	190.5
Family clothing stores	565	107.8	111.5	118.6	121.5	127.7	141.8	146.9	150.2	153.1	156.5
Shoe stores	566	107.9	107.8	115.5	117.3	130.7	139.2	151.9	148.4	145.0	151.1
Furniture and homefurnishings stores	571	104.6	105.4	113.9	113.3	114.7	117.4	123.6	124.2	127.2	134.1
Household appliance stores	572	104.3	106.7	115.5	118.0	121.5	138.4	140.7	153.5	181.4	183.9
Radio, television, computer, and music stores	573	121.1	129.8	139.9	154.5	179.1	199.3	208.1	218.4	260.3	314.6
Eating and drinking places	581	104.5	103.8	103.4	103.8	102.1	102.0	100.6	101.6	102.0	104.3
Drug and proprietary stores	591	106.3	108.0	107.6	109.5	109.9	111.1	113.9	119.7	125.6	129.8
Liquor stores	592	105.9	106.9	109.6	101.8	100.1	104.7	113.8	109.9	116.5	114.6
Used merchandise stores	593	103.0	102.3	115.7	116.8	119.5	120.6	132.7	140.3	163.6	181.9
Miscellaneous shopping goods stores	594	107.2	109.0	107.5	111.5	117.1	123.1	125.3	129.1	138.8	145.2
Nonstore retailers	596	111.1	112.5	126.5	132.2	149.0	152.4	173.3	186.5	208.0	222.2
Fuel dealers	598	84.5	85.3	84.2	91.8	99.0	111.4	112.4	109.0	105.8	115.1
Retail stores, n.e.c.	599	114.5	104.0	112.5	118.1	125.8	127.0	140.2	147.8	157.3	161.0
Finance and services											
Commercial banks	602	107.7	110.1	111.0	118.5	121.7	126.4	129.7	133.0	132.6	135.2
Hotels and motels	701	96.2	99.3	108.0	106.5	109.9	110.5	110.0	108.2	111.6	113.5
Laundry, cleaning, and garment services	721	102.3	99.9	99.3	99.9	105.0	106.6	109.8	109.0	116.2	121.8
Photographic studios, portrait	722	98.2	92.1	95.8	101.8	108.3	116.2	110.7	114.1	121.6	105.1
Beauty shops	723	97.5	95.8	100.9	97.0	101.1	104.8	107.6	108.5	110.5	113.3
Barber shops	724	100.7	94.9	113.2	121.9	118.8	115.7	128.8	150.4	157.4	138.0
Funeral services and crematories	726	91.2	89.9	103.8	98.7	104.3	100.2	97.6	101.9	104.2	99.7
Automotive repair shops	753	107.9	100.1	105.1	105.7	114.3	121.6	116.1	117.2	124.9	127.6
Motion picture theaters	783	118.1	118.2	114.8	113.8	110.4	105.0	104.1	103.4	106.1	110.5

[1] Refers to output per employee

[2] Refers to ouput per full-time equivalent employee year on fiscal basis.

n.e.c. = not elsewhere classified

43. Unemployment rates, approximating U.S. concepts, in nine countries, quarterly data seasonally adjusted

Country	Annual average		1999				2000			
	1999	2000	I	II	III	IV	I	II	III	IV
United States	4.2	4.0	4.3	4.3	4.2	4.1	4.1	4.0	4.0	4.0
Canada	6.8	5.8	7.1	7.1	6.8	6.2	6.0	5.8	5.8	5.7
Australia	7.2	6.6	7.5	7.4	7.1	7.0	6.8	6.7	6.3	6.5
Japan[1]	4.7	4.8	4.7	4.8	4.8	4.7	4.8	4.7	4.7	4.8
France[1]	11.2	9.7	11.4	11.3	11.2	10.8	10.2	9.7	9.6	9.2
Germany[1]	8.7	8.3	8.8	8.8	8.8	8.7	8.4	8.3	8.2	8.1
Italy[1,2]	11.5	10.7	11.8	11.7	11.5	11.2	11.3	10.8	10.6	10.1
Sweden[1]	7.1	5.9	7.1	7.0	7.1	7.1	6.7	6.0	5.6	5.2
United Kingdom[1]	6.1	–	6.2	6.1	5.9	5.9	5.8	5.5	5.4	–

[1] Preliminary for 2000 for Japan, France, Germany (unified), Italy, and Sweden and for 1999 onward for the United Kingdom.

[2] Quarterly rates are for the first month of the quarter.

NOTE: Quarterly figures for France and Germany are calculated by applying annual adjustment factors to current published data, and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See "Notes on the data" for information on breaks in series. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries,1959–2000* (Bureau of Labor Statistics, Mar. 16, 2001).

Dash indicates data not available.

44. Annual data: Employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Civilian labor force										
United States[1]	126,346	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368	140,863
Canada	14,128	14,168	14,299	14,387	14,500	14,650	14,936	15,216	15,513	15,745
Australia	8,490	8,562	8,619	8,776	9,001	9,127	9,221	9,347	9,470	9,682
Japan	64,280	65,040	65,470	65,780	65,990	66,450	67,200	67,240	67,090	66,990
France	24,470	24,570	24,640	24,780	24,830	25,090	25,210	25,540	25,860	–
Germany[2]	39,130	39,040	39,140	39,210	39,100	39,180	39,480	39,520	39,630	–
Italy	22,940	22,910	22,570	22,450	22,460	22,570	22,680	22,960	23,130	–
Netherlands	6,780	6,940	7,050	7,200	7,230	7,440	7,510	7,670	7,750	–
Sweden	4,591	4,520	4,443	4,418	4,460	4,459	4,418	4,402	4,430	–
United Kingdom	28,610	28,410	28,310	28,280	28,480	28,620	28,760	28,870	29,090	–
Participation rate[3]										
United States[1]	66.2	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.2
Canada	66.7	65.9	65.5	65.2	64.9	64.7	65.0	65.4	65.8	65.9
Australia	64.1	63.9	63.6	63.9	64.6	64.6	64.3	64.4	64.2	64.7
Japan	63.2	63.4	63.3	63.1	62.9	63.0	63.2	62.8	62.4	62.0
France	55.9	55.8	55.6	55.5	55.3	55.5	55.3	55.7	56.0	–
Germany[2]	58.9	58.3	58.0	57.6	57.3	57.4	57.7	57.7	57.9	–
Italy	47.7	47.5	47.9	47.3	47.1	47.1	47.2	47.6	47.8	–
Netherlands	56.8	57.7	58.2	59.0	58.9	60.3	60.6	61.4	61.5	–
Sweden	67.0	65.7	64.5	63.7	64.1	64.0	63.3	62.8	63.2	–
United Kingdom	63.7	63.1	62.8	62.5	62.7	62.7	62.8	62.7	62.9	–
Employed										
United States[1]	117,718	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488	135,208
Canada	12,747	12,672	12,770	13,027	13,271	13,380	13,705	14,068	14,456	14,827
Australia	7,676	7,637	7,680	7,921	8,235	8,344	8,429	8,597	8,785	9,043
Japan	62,920	63,620	63,810	63,860	63,890	64,200	64,900	64,450	63,920	63,790
France	22,120	22,020	21,740	21,730	21,910	21,960	22,090	22,520	22,970	–
Germany[2]	36,920	36,420	36,030	35,890	35,900	35,680	35,570	35,830	36,170	–
Italy	21,360	21,230	20,270	19,940	19,820	19,920	19,990	20,210	20,460	–
Netherlands	6,380	6,540	6,590	6,680	6,730	6,970	7,110	7,360	7,490	–
Sweden	4,447	4,265	4,028	3,992	4,056	4,019	3,973	4,034	4,117	–
United Kingdom	26,090	25,530	25,340	25,550	26,000	26,280	26,740	27,050	27,330	–
Employment-population ratio[4]										
United States[1]	61.7	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.5
Canada	60.2	58.9	58.5	59.0	59.4	59.1	59.7	60.4	61.3	62.1
Australia	57.9	57.0	56.6	57.7	59.1	59.1	58.8	59.2	59.6	60.4
Japan	61.8	62.0	61.7	61.3	60.9	60.9	61.0	60.2	59.4	59.0
France	50.6	50.0	49.0	48.7	48.8	48.5	48.5	49.1	49.8	–
Germany[2]	55.5	54.4	53.4	52.8	52.6	52.2	52.0	52.3	52.8	–
Italy	44.5	44.0	43.0	42.0	41.5	41.6	41.6	41.9	42.3	–
Netherlands	53.4	54.4	54.4	54.8	54.9	56.5	57.4	58.9	59.4	–
Sweden	64.9	62.0	58.5	57.6	58.3	57.7	56.9	57.6	58.7	–
United Kingdom	58.0	56.7	56.2	56.5	57.2	57.6	58.3	58.7	59.1	–
Unemployed										
United States[1]	8,628	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,655
Canada	1,381	1,496	1,530	1,359	1,229	1,271	1,230	1,148	1,058	918
Australia	814	925	939	856	766	783	791	750	685	638
Japan	1,360	1,420	1,660	1,920	2,100	2,250	2,300	2,790	3,170	3,200
France	2,350	2,550	2,900	3,060	2,920	3,130	3,130	3,020	2,890	–
Germany[2]	2,210	2,620	3,110	3,320	3,200	3,500	3,910	3,690	3,460	–
Italy	1,580	1,680	2,300	2,510	2,640	2,650	2,690	2,750	2,670	–
Netherlands	400	390	460	520	510	470	400	310	260	–
Sweden	144	255	415	426	404	440	445	368	313	–
United Kingdom	2,520	2,880	2,970	2,730	2,480	2,340	2,020	1,820	1,760	–
Unemployment rate										
United States[1]	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0
Canada	9.8	10.6	10.7	9.4	8.5	8.7	8.2	7.5	6.8	5.8
Australia	9.6	10.8	10.9	9.7	8.5	8.6	8.6	8.0	7.2	6.6
Japan	2.1	2.2	2.5	2.9	3.2	3.4	3.4	4.1	4.7	4.8
France	9.6	10.4	11.8	12.3	11.8	12.5	12.4	11.8	11.2	9.7
Germany[2]	5.6	6.7	7.9	8.5	8.2	8.9	9.9	9.3	8.7	–
Italy	6.9	7.3	10.2	11.2	11.8	11.7	11.9	12.0	11.5	10.7
Netherlands	5.9	5.6	6.5	7.2	7.1	6.3	5.3	4.0	3.4	–
Sweden	3.1	5.6	9.3	9.6	9.1	9.9	10.1	8.4	7.1	5.9
United Kingdom	8.8	10.1	10.5	9.7	8.7	8.2	7.0	6.3	6.1	–

[1] Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

[2] Data from 1991 onward refer to unified Germany. See *Comparative Civilian Labor Force Statistics, Ten Countries, 1959–2000*, Mar. 16, 2001, on the Internet at **http://stats.bls.gov/flsdata.htm**.

[3] Labor force as a percent of the working-age population.

[4] Employment as a percent of the working-age population.

NOTE: See Notes on the data for information on breaks in series for the United States, France, Germany, Italy, the Netherlands, and Sweden.

Dash indicates data are not available.

p = preliminary.

45. Annual indexes of manufacturing productivity and related measures, 12 countries

[1992 = 100]

Item and country	1960	1970	1980	1988	1989	1990	1991	1993	1994	1995	1996	1997	1998	1999
Output per hour														
United States	–	–	70.5	96.9	95.7	96.9	97.8	102.1	107.3	113.8	117.0	121.1	127.0	134.8
Canada	38.7	56.6	75.1	90.9	93.7	95.7	95.3	104.5	109.9	111.0	109.5	112.8	112.5	115.2
Japan	14.0	38.0	63.9	84.8	89.5	95.4	99.4	100.5	101.8	109.3	115.8	121.4	120.4	124.1
Belgium	18.0	32.9	65.4	92.0	96.9	96.8	99.1	102.5	108.4	113.2	115.5	122.4	123.6	124.5
Denmark	29.9	52.7	90.3	94.1	99.6	99.1	99.6	104.5	–	–	–	–	–	–
France	21.8	43.0	66.5	87.5	91.9	93.5	96.9	100.6	108.5	114.5	115.0	122.6	124.0	128.9
Germany	29.2	52.0	77.2	91.5	94.6	99.0	99.0	101.6	110.1	113.2	116.8	122.4	126.7	128.5
Italy	20.2	37.9	65.9	86.7	89.4	92.5	95.2	102.9	105.6	109.3	109.5	111.5	111.1	112.9
Netherlands	18.6	38.1	69.2	93.7	97.1	98.6	99.6	101.4	112.7	117.7	119.7	125.7	127.8	–
Norway	36.7	57.8	76.7	92.1	94.6	96.6	97.5	100.6	101.4	102.0	102.0	103.0	103.9	103.9
Sweden	27.3	52.2	73.1	90.5	93.2	94.6	95.5	107.3	119.4	121.9	124.5	133.0	135.6	139.5
United Kingdom	31.2	44.7	56.1	82.3	86.2	88.3	92.2	104.0	106.8	104.8	103.2	104.0	104.6	109.2
Output														
United States	–	–	75.8	103.2	102.4	101.6	98.3	103.5	111.1	118.4	121.3	127.7	133.5	139.3
Canada	34.2	60.6	86.0	110.1	112.6	108.6	99.0	104.6	113.2	118.1	119.8	128.1	133.1	141.3
Japan	10.7	38.8	59.9	84.6	90.2	96.3	101.4	96.0	95.4	100.6	106.7	111.1	103.6	103.9
Belgium	30.7	57.6	78.2	93.3	99.1	101.0	100.7	97.0	101.4	104.2	105.1	109.9	111.8	113.8
Denmark	40.8	68.0	91.3	100.8	104.3	102.7	101.7	99.0	109.3	114.7	109.7	112.6	115.3	111.5
France	31.0	64.1	88.7	92.2	97.2	99.1	99.8	95.7	100.3	104.9	104.6	109.7	111.5	114.2
Germany	41.5	70.9	85.3	90.9	94.0	99.1	102.3	92.5	95.2	95.3	93.5	96.3	100.9	102.2
Italy	21.9	45.8	80.4	94.5	98.1	99.6	99.2	96.4	102.2	107.2	105.6	108.3	110.3	111.4
Netherlands	31.7	59.5	77.4	92.8	96.9	100.1	100.6	98.2	104.2	107.8	108.4	114.1	116.6	–
Norway	56.5	89.1	103.6	105.3	101.3	100.2	98.3	102.7	106.7	109.0	110.1	115.7	117.6	114.0
Sweden	45.9	80.7	90.7	109.8	110.9	110.1	104.1	101.9	117.1	128.4	131.1	138.6	144.6	150.7
United Kingdom	67.7	90.3	87.2	101.4	105.4	105.3	100.0	101.4	106.1	107.8	108.2	109.6	109.9	109.7
Total hours														
United States	92.1	104.4	107.5	106.6	107.1	104.8	100.4	101.4	103.6	104.0	103.7	105.5	105.2	103.3
Canada	88.3	107.1	114.6	121.2	120.2	113.5	103.9	100.1	103.0	106.4	109.4	113.5	118.3	122.7
Japan	76.3	102.3	93.8	99.8	100.8	100.9	102.0	95.6	93.7	92.0	92.2	91.5	86.1	83.8
Belgium	170.7	174.7	119.7	101.5	102.3	104.3	101.5	94.7	93.6	92.0	91.0	89.8	90.5	91.5
Denmark	136.5	129.0	101.1	107.2	104.7	103.7	102.1	94.8	–	–	–	–	–	–
France	142.3	149.0	133.3	105.4	105.8	105.9	103.0	95.1	92.4	91.6	91.0	89.5	89.9	88.6
Germany	142.3	136.3	110.5	99.3	99.3	100.1	103.3	91.0	86.5	84.2	80.1	78.7	79.6	79.5
Italy	108.7	120.9	122.0	108.9	109.7	107.7	104.2	93.6	96.7	98.0	96.5	97.1	99.3	98.6
Netherlands	170.6	156.2	111.8	99.0	99.8	101.5	101.0	96.9	92.4	91.6	90.5	90.8	91.2	–
Norway	154.0	154.3	135.0	114.3	107.1	103.7	100.8	102.1	105.2	106.9	107.9	112.3	113.2	109.8
Sweden	168.3	154.7	124.0	121.4	119.0	116.4	109.0	94.9	98.1	105.3	105.3	104.2	106.6	108.0
United Kingdom	217.3	202.1	155.3	123.2	122.3	119.2	108.5	97.5	99.4	102.9	104.8	105.4	105.0	100.5
Compensation per hour														
United States	14.9	23.7	55.6	84.0	86.6	90.8	95.6	102.7	105.6	107.9	109.3	111.4	117.3	123.2
Canada	9.9	17.0	47.7	77.8	82.5	89.5	94.7	99.6	100.4	103.6	102.8	106.7	110.8	110.8
Japan	4.3	16.5	58.6	79.2	84.2	90.7	95.9	104.6	106.7	109.5	110.9	113.9	115.8	117.7
Belgium	5.4	13.7	52.5	81.1	85.9	90.1	97.3	104.8	106.1	109.2	112.0	115.2	116.0	116.0
Denmark	4.6	13.3	49.6	82.9	87.7	92.7	95.9	104.6	–	–	–	–	–	–
France	4.3	10.3	40.8	81.6	86.0	90.6	96.2	103.0	105.6	108.4	110.2	113.0	114.9	119.3
Germany	8.1	20.7	53.6	79.1	83.2	89.4	92.1	106.1	112.3	118.5	125.2	128.0	128.9	130.8
Italy	1.6	4.7	28.4	69.3	75.9	84.4	93.6	107.5	107.8	112.8	120.3	125.4	123.0	126.5
Netherlands	6.4	20.2	64.4	87.7	88.5	90.8	95.2	103.7	108.2	110.6	113.2	115.8	118.3	–
Norway	4.7	11.8	39.0	83.3	87.2	92.3	97.5	101.5	104.4	109.2	113.6	118.7	126.2	133.4
Sweden	4.1	10.7	37.3	71.8	79.4	87.8	95.5	97.2	99.8	106.3	114.2	119.7	123.3	127.4
United Kingdom	3.1	6.3	33.2	67.7	72.9	80.9	90.5	104.3	106.5	107.4	108.2	111.4	117.0	122.6
Unit labor costs: National currency basis														
United States	–	–	78.8	86.7	90.5	93.7	97.7	100.6	98.5	94.8	93.5	92.0	92.4	91.4
Canada	25.6	30.1	63.2	85.2	88.0	92.3	99.7	97.6	94.3	95.5	95.9	95.9	98.8	98.1
Japan	30.9	43.3	91.7	93.4	94.0	95.0	96.5	104.1	104.9	100.1	95.8	93.8	96.2	94.9
Belgium	30.1	41.7	80.3	88.1	88.7	93.0	98.1	102.3	97.9	96.4	95.6	93.3	93.7	93.4
Denmark	15.4	25.2	55.0	88.2	88.1	93.6	96.3	100.1	93.0	93.8	100.9	102.0	102.8	108.9
France	19.5	24.0	61.3	93.3	93.6	96.8	99.3	102.4	97.3	94.7	95.9	92.2	92.7	92.6
Germany	27.8	39.8	69.4	86.5	87.9	90.3	93.1	104.5	102.0	104.7	107.2	104.6	101.8	101.8
Italy	7.9	12.4	43.1	79.9	84.9	91.3	98.4	104.4	102.1	103.2	109.9	112.4	110.8	112.0
Netherlands	34.4	52.9	93.0	93.6	91.1	92.1	95.5	102.3	96.0	94.0	94.6	92.2	92.5	–
Norway	12.9	20.4	50.8	90.4	92.2	95.6	100.0	100.9	102.9	107.1	111.4	115.2	121.5	128.5
Sweden	15.0	20.6	51.0	79.4	85.1	92.8	100.0	90.6	83.6	87.2	91.7	90.0	90.9	91.3
United Kingdom	9.8	14.1	59.1	82.2	84.6	91.6	98.2	100.3	99.7	102.5	104.8	107.1	111.9	112.3
Unit labor costs: U.S. dollar basis														
United States	–	–	78.8	86.7	90.5	93.7	97.7	100.6	98.5	94.8	93.5	92.0	92.4	91.4
Canada	32.0	34.8	65.3	83.6	89.8	95.6	105.1	91.4	83.4	84.1	85.0	83.6	80.5	79.8
Japan	10.9	15.3	51.3	92.4	86.3	83.1	90.9	118.8	130.1	135.1	111.7	98.3	93.1	105.7
Belgium	19.4	27.0	88.3	77.0	72.3	89.5	92.3	95.1	94.2	105.2	99.3	83.7	83.0	79.3
Denmark	13.5	20.3	58.9	79.0	72.6	91.3	90.8	93.2	88.3	101.1	105.0	93.1	92.6	94.1
France	21.1	23.0	76.8	82.9	77.6	94.1	93.1	95.6	92.9	100.6	99.2	83.6	83.2	79.6
Germany	10.4	17.1	59.6	76.9	73.0	87.3	87.5	98.6	98.2	114.1	111.3	94.1	90.3	86.6
Italy	15.6	24.4	62.0	75.6	76.2	93.8	97.6	81.8	78.1	78.0	87.8	81.3	78.6	75.9
Netherlands	16.0	25.7	82.3	83.2	75.5	88.9	89.8	96.8	92.8	103.0	98.6	83.0	82.0	–
Norway	11.3	17.8	63.9	86.1	82.9	95.0	95.7	88.3	90.7	105.0	107.1	101.1	100.0	102.2
Sweden	16.9	23.1	70.3	75.4	76.8	91.3	96.3	67.7	63.1	71.2	79.7	68.6	66.6	64.3
United Kingdom	15.6	19.2	77.8	82.9	78.5	92.5	98.2	85.3	86.5	91.6	92.6	99.3	105.0	102.8

NOTE: Data for Germany for years before 1992 are for the former West Germany. Data for 1992 onward are for unified Germany. Dash indicates data not available.

46. Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]
PRIVATE SECTOR[5]												
Total cases	8.6	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7	6.3
Lost workday cases	4.0	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1	3.0
Lost workdays	76.1	78.7	84.0	86.5	93.8	–	–	–	–	–	–	–
Agriculture, forestry, and fishing[5]												
Total cases	10.9	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9	7.3
Lost workday cases	5.6	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9	3.4
Lost workdays	101.8	100.9	112.2	108.3	126.9	–	–	–	–	–	–	–
Mining												
Total cases	8.8	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9	4.4
Lost workday cases	5.1	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9	2.7
Lost workdays	152.1	137.2	119.5	129.6	204.7	–	–	–	–	–	–	–
Construction												
Total cases	14.6	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8	8.6
Lost workday cases	6.8	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0	4.2
Lost workdays	142.2	143.3	147.9	148.1	161.9	–	–	–	–	–	–	–
General building contractors:												
Total cases	14.0	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0	8.5	8.4	8.0
Lost workday cases	6.4	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0	3.7	3.9	3.7
Lost workdays	132.2	137.3	137.6	132.0	142.7	–	–	–	–	–	–	–
Heavy construction, except building:												
Total cases	15.1	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0	8.7	8.2	7.8
Lost workday cases	7.0	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3	4.3	4.1	3.8
Lost workdays	162.3	147.1	144.6	160.1	165.8	–	–	–	–	–	–	–
Special trades contractors:												
Total cases	14.7	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1	8.9
Lost workday cases	7.0	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1	4.4
Lost workdays	141.1	144.9	153.1	151.3	168.3	–	–	–	–	–	–	–
Manufacturing												
Total cases	13.1	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7	9.2
Lost workday cases	5.7	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7	4.6
Lost workdays	107.4	113.0	120.7	121.5	124.6	–	–	–	–	–	–	–
Durable goods:												
Total cases	14.2	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7	10.1
Lost workday cases	5.9	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1	5.1	5.0	4.8
Lost workdays	111.1	116.5	123.3	122.9	126.7	–	–	–	–	–	–	–
Lumber and wood products:												
Total cases	19.5	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2	13.5	13.2	13.0
Lost workday cases	10.0	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8	6.5	6.8	6.7
Lost workdays	189.1	177.5	172.5	172.0	165.8	–	–	–	–	–	–	–
Furniture and fixtures:												
Total cases	16.6	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2	12.0	11.4	11.5
Lost workday cases	7.3	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4	5.8	5.7	5.9
Lost workdays	115.7	–	–	–	128.4	–	–	–	–	–	–	–
Stone, clay, and glass products:												
Total cases	16.0	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4	11.8	11.8	10.7
Lost workday cases	7.5	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0	5.7	6.0	5.4
Lost workdays	141.0	149.8	160.5	156.0	152.2	–	–	–	–	–	–	–
Primary metal industries:												
Total cases	19.4	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0	15.0	14.0	12.9
Lost workday cases	8.2	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8	7.2	7.0	6.3
Lost workdays	161.3	168.3	180.2	169.1	175.5	–	–	–	–	–	–	–
Fabricated metal products:												
Total cases	18.8	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4	14.2	13.9	12.6
Lost workday cases	8.0	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2	6.4	6.5	6.0
Lost workdays	138.8	147.6	155.7	146.6	144.0	–	–	–	–	–	–	–
Industrial machinery and equipment:												
Total cases	12.1	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9	10.0	9.5	8.5
Lost workday cases	4.7	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0	4.1	4.0	3.7
Lost workdays	82.8	86.8	88.9	86.6	87.7	–	–	–	–	–	–	–
Electronic and other electrical equipment:												
Total cases	8.0	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8	6.6	5.9	5.7
Lost workday cases	3.3	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1	3.1	2.8	2.8
Lost workdays	64.6	77.5	79.4	83.0	81.2	–	–	–	–	–	–	–
Transportation equipment:												
Total cases	17.7	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3	15.4	14.6	13.7
Lost workday cases	6.6	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0	6.6	6.6	6.4
Lost workdays	134.2	138.6	153.7	166.1	186.6	–	–	–	–	–	–	–
Instruments and related products:												
Total cases	6.1	5.6	5.9	6.0	5.9	5.6	5.9	5.3	5.1	4.8	4.0	4.0
Lost workday cases	2.6	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3	2.3	1.9	1.8
Lost workdays	51.5	55.4	57.8	64.4	65.3	–	–	–	–	–	–	–
Miscellaneous manufacturing industries:												
Total cases	11.3	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1	8.4
Lost workday cases	5.1	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9	4.0
Lost workdays	91.0	97.6	113.1	104.0	108.2	–	–	–	–	–	–	–

See footnotes at end of table.

46. Continued—Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1988	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]
Nondurable goods:												
Total cases	11.4	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2	7.8
Lost workday cases	5.4	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6	4.4	4.3	4.2
Lost workdays	101.7	107.8	116.9	119.7	121.8	–	–	–	–	–	–	–
Food and kindred products:												
Total cases	18.5	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0	14.5	13.6	12.7
Lost workday cases	9.2	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0	8.0	7.5	7.3
Lost workdays	169.7	174.7	202.6	207.2	211.9	–	–	–	–	–	–	–
Tobacco products:												
Total cases	9.3	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7	5.9	6.4	5.5
Lost workday cases	2.9	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8	2.7	3.4	2.2
Lost workdays	53.0	64.2	62.3	52.0	42.9	–	–	–	–	–	–	–
Textile mill products:												
Total cases	9.6	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8	6.7	7.4	6.4
Lost workday cases	4.0	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6	3.1	3.4	3.2
Lost workdays	78.8	81.4	85.1	88.3	87.1	–	–	–	–	–	–	–
Apparel and other textile products:												
Total cases	8.1	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4	7.0	6.2	5.8
Lost workday cases	3.5	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3	3.1	2.6	2.8
Lost workdays	68.2	80.5	92.1	99.9	104.6	–	–	–	–	–	–	–
Paper and allied products:												
Total cases	13.1	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9	7.3	7.1	7.0
Lost workday cases	5.9	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8	3.7	3.7	3.7
Lost workdays	124.3	132.9	124.8	122.7	125.9	–	–	–	–	–	–	–
Printing and publishing:												
Total cases	6.6	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0	5.7	5.4	5.0
Lost workday cases	3.2	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.7	2.8	2.6
Lost workdays	59.8	63.8	69.8	74.5	74.8	–	–	–	–	–	–	–
Chemicals and allied products:												
Total cases	7.0	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8	4.8	4.2	4.4
Lost workday cases	3.3	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4	2.3	2.1	2.3
Lost workdays	59.0	63.4	61.6	62.4	64.2	–	–	–	–	–	–	–
Petroleum and coal products:												
Total cases	7.0	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6	4.3	3.9	4.1
Lost workday cases	3.2	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5	2.2	1.8	1.8
Lost workdays	68.4	68.1	77.3	68.2	71.2	–	–	–	–	–	–	–
Rubber and miscellaneous plastics products:												
Total cases	16.3	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3	11.9	11.2	10.1
Lost workday cases	8.1	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3	5.8	5.8	5.5
Lost workdays	142.9	147.2	151.3	150.9	153.3	–	–	–	–	–	–	–
Leather and leather products:												
Total cases	11.4	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7	10.6	9.8	10.3
Lost workday cases	5.6	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5	4.3	4.5	5.0
Lost workdays	128.2	130.4	152.3	140.8	128.5	–	–	–	–	–	–	–
Transportation and public utilities												
Total cases	8.9	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3	7.3
Lost workday cases	5.1	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1	4.8	4.3	4.4
Lost workdays	118.6	121.5	134.1	140.0	144.0	–	–	–	–	–	–	–
Wholesale and retail trade												
Total cases	7.8	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5	6.1
Lost workday cases	3.5	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9	3.0	2.8	2.7
Lost workdays	60.9	63.5	65.6	72.0	80.1	–	–	–	–	–	–	–
Wholesale trade:												
Total cases	7.6	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6	6.5	6.5	6.3
Lost workday cases	3.8	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4	3.2	3.3	3.3
Lost workdays	69.2	71.9	71.5	79.2	82.4	–	–	–	–	–	–	–
Retail trade:												
Total cases	7.9	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5	6.1
Lost workday cases	3.4	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8	2.9	2.7	2.5
Lost workdays	57.6	60.0	63.2	69.1	79.2	–	–	–	–	–	–	–
Finance, insurance, and real estate												
Total cases	2.0	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4	2.2	.7	1.8
Lost workday cases	.9	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	.9	.5	.8
Lost workdays	17.2	17.6	27.3	24.1	32.9	–	–	–	–	–	–	–
Services												
Total cases	5.4	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0	5.6	5.2	4.9
Lost workday cases	2.6	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6	2.5	2.4	2.2
Lost workdays	47.7	51.2	56.4	60.0	68.6	–	–	–	–	–	–	–

[1] Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985–88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

[2] Beginning with the 1992 survey, the annual survey measures only nonfatal injuries and illnesses, while past surveys covered both fatal and nonfatal incidents. To better address fatalities, a basic element of workplace safety, BLS implemented the Census of Fatal Occupational Injuries.

[3] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays;

EH = total hours worked by all employees during the calendar year; and

200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

[4] Beginning with the 1993 survey, lost workday estimates will not be generated. As of 1992, BLS began generating percent distributions and the median number of days away from work by industry and for groups of workers sustaining similar work disabilities.

[5] Excludes farms with fewer than 11 employees since 1976.

Dash indicates data not available.

47. Fatal occupational injuries by event or exposure, 1993–98

Event or exposure[1]	Fatalities			
	1993–97	1997[2]	1998	
	Average	Number	Number	Percent
Total	6,335	6,238	6,026	100
Transportation incidents	2,611	2,605	2,630	44
Highway incident	1,334	1,393	1,431	24
Collision between vehicles, mobile equipment	652	640	701	12
Moving in same direction	109	103	118	2
Moving in opposite directions, oncoming	234	230	271	4
Moving in intersection	132	142	142	2
Vehicle struck stationary object or equipment	249	282	306	5
Noncollision incident	360	387	373	6
Jackknifed or overturned—no collision	267	298	300	5
Nonhighway (farm, industrial premises) incident	388	377	384	6
Overturned	214	216	216	4
Aircraft	315	261	223	4
Worker struck by a vehicle	373	367	413	7
Water vehicle incident	106	109	112	2
Railway	83	93	60	1
Assaults and violent acts	1,241	1,111	960	16
Homicides	995	860	709	12
Shooting	810	708	569	9
Stabbing	75	73	61	1
Other, including bombing	110	79	79	1
Self-inflicted injuries	215	216	223	4
Contact with objects and equipment	1,005	1,035	941	16
Struck by object	573	579	517	9
Struck by falling object	369	384	317	5
Struck by flying object	65	54	58	1
Caught in or compressed by equipment or objects	290	320	266	4
Caught in running equipment or machinery	153	189	129	2
Caught in or crushed in collapsing materials	124	118	140	2
Falls	668	716	702	12
Fall to lower level	591	653	623	10
Fall from ladder	94	116	111	2
Fall from roof	139	154	156	3
Fall from scaffold, staging	83	87	97	2
Fall on same level	52	44	51	1
Exposure to harmful substances or environments	586	554	572	9
Contact with electric current	320	298	334	6
Contact with overhead power lines	128	138	153	3
Contact with temperature extremes	43	40	46	1
Exposure to caustic, noxious, or allergenic substances	120	123	104	2
Inhalation of substances	70	59	48	1
Oxygen deficiency	101	90	87	1
Drowning, submersion	80	72	75	1
Fires and explosions	199	196	205	3
Other events or exposures[3]	26	21	16	–

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

[2] The BLS news release issued August 12, 1998, reported a total of 6,218 fatal work injuries for calendar year 1997. Since then, an additional 20 job-related fatalities were identified, bringing the total job-related fatality count for 1997 to 6,238.

[3] Includes the category "Bodily reaction and exertion."

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dash indicates less than 0.5 percent.

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Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
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